1554

JOURNALS OF THE SIEGES,

&c. &c. &c.

1554

JOURNALS

OF THE

SIEGES OF THE MADRAS ARMY,

IN THE

YEARS 1817, 1818, AND 1819,

WITH

OBSERVATIONS ON THE SYSTEM,

ACCORDING TO WHICH

SUCH OPERATIONS HAVE USUALLY BEEN CONDUCTED

IN

INDIA,

AND A STATEMENT OF THE IMPROVEMENTS

THAT APPEAR NECESSARY.

BY EDWARD LAKE,

LIEUTENANT OF THE HONOURABLE EAST INDIA COMPANY'S

MADRAS ENGINEERS.

WITH AN ATLAS OF EXPLANATORY PLATES.

LONDON:

PUBLISHED BY KINGSBURY, PARBURY, AND ALLEN,

LEADENHALL STREET.

1825.

TO

MAJOR-GENERAL SIR JOHN MALCOLM,

G.C.B. AND K.L.S.

AT WHOSE SUGGESTION IT WAS UNDERTAKEN,

THIS WORK,

INTENDED TO ASSIST IN PROMOTING THE GENERAL EFFICIENCY OF THAT ARMY,

OF WHICH HE IS SO BRIGHT AN ORNAMENT,

IS INSCRIBED,

WITH EVERY SENTIMENT OF

ESTEEM, ADMIRATION, AND REGARD,

AS A FAINT TRIBUTE OF GRATITUDE

FOR NUMEROUS AND LONG-CONTINUED ACTS OF KINDNESS,

BY HIS OBLIGED AND FAITHFUL SERVANT,

EDWARD LAKE.

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ERRATA.

Page 28, line 17. *For* Nigam's. *Read* Nizam's.

39, line 4. *For* Point. *Read* Point A.

54, line 4 from bottom. *For* (*a*). *Read* (*d*).

68, line 14. *For* North-East. *Read* North-West.

69, line 3. *For* South-Westerly. *Read* South-Easterly.

79, line 8. *For* position marked (2) on the Plan. *Read* 2d position, marked on the Plan.

100, line 3 from bottom. *For* m. *Read* in.

114, line 14. *For* left. *Read* right.

Do. line 21. *For* left. *Read* right.

172, line 12. *For* breaching battery, to bear on the retaining wall No. 4. *Read* breaching battery, No. 4, to bear on the retaining wall.

178, line 5 from bottom. *For* West side. *Read* North side of the Upper Fort, by the guns placed in battery (k) of the West attack.

185, line 12. *For* (2 and 6). *Read* (a and b).

From Page 204 to 223 inclusive. *Dele* 1819 in the margin of each Page.

PREFACE.

In the Work now committed to the indulgence of the public, the Author does not profess to relate any thing new, regarding the events of the late Mahratta War, which are already sufficiently known, through the medium of the different histories of it, that have been published: his object has been to present, in *detail*, particular operations, which the nature of those histories has obliged their Authors to treat in a cursory manner, but of which, as forming a most important branch of the war, it is essential that an account should be given; not only as a record of the past, but as it may also be made a land-mark for the future. It is with this view, that he has added to the journals of the different sieges, a few remarks upon the operations carried on, and that he has treated the whole subject at large, in his preliminary and concluding Chapters. In the former of these, the Author has hazarded some observations and reflections on the Native Fortresses

of India, between which and the Fortresses of Europe, he has endeavoured to draw a comparison. In the concluding Chapter, he has considered the best method of attack, and the means at present possessed by the Engineer Department, for carrying such a system into execution, and he has done so in hopes, that whatever objections may be raised to that system, and however defective it may be, the discussion will be of use, in drawing more attention to the subject, and that it may aid in giving a more decided and energetic shape to our future siege operations.

It was the Author's original intention to have included in this Work, the sieges which took place under the other Presidencies, and an application was accordingly made for the accounts of those carried on by the Bengal army, from a quarter which he hoped would have met attention; but in this he was disappointed: and he has therefore unwillingly been obliged to confine himself to the sieges undertaken by the Madras Divisions. It may be observed, that an official Journal of every operation of the kind, containing each day's work, as entered at the time, was kept, wherever an Engineer Officer of the Madras Establishment was present, and transmitted with the Plans, &c. to the chief Engineer's Office. The liberal access to these, which has been granted to him by the

Madras Government, and which has afforded him every opportunity and information he could desire, demands his warmest acknowledgements. The Journals therefore, from which the following have been taken, are all official, and he has strictly followed them, except in one or two instances, where having been present himself, and having taken memoranda on the spot, he has viewed the operations in a different light. These deviations, which however are very few, are remarked in the notes. The accounts of the sieges, at which there was no Engineer Officer present, have been extracted from Lieut.Col. Blacker's Memoir*, to which he is also indebted for much valuable information, regarding the strength of the different Corps, and the general movements of the Divisions and Troops, although these, it may be observed, are only noticed, so far as they are connected with the object of the present work. There are one or two instances, in which the Author has found himself obliged to dissent from the conclusions drawn, by that distinguished Officer; and this difference of opinion is only noticed, that he may at the same time mention, that it is offered with diffidence. The Plans of the Forts, at the sieges of which Engineer Officers were present, were executed by them, and the Views, which

* Of the operations of the British Army in India, during the Mahratta War of 1817, 1818 and 1819.

are introduced, to illustrate more fully the nature of some of the places attacked, have been copied from the drawings of different Friends and Brother Officers. The Author thinks it right to mention, that his Work has been considerably delayed, in consequence of the difficulty he experienced, in obtaining the information necessary for combining the Journals of the several sieges into a connected Narrative.

Having thus stated his authorities for the facts recorded in the following Work, none of which are brought forward as such, but what he either knows or firmly believes to be true, it only remains to say a few words on the opinions the Author has expressed, regarding the inefficiency of the Engineer Department, and of the improvements he considers necessary in consequence. These opinions have been honestly formed, after long reflection, and he has been strengthened in them by knowing, that they are the unanimous sentiments of his Brother Officers, and that they all join with him, in an anxious wish, to see the Corps to which they have the honor to belong, placed on a footing of equal efficiency with the rest of the Army. He has expressed himself with confidence, because from the anxiety which the Court of Directors have always shown, to have this branch of their Army equal to the performance

of its duties, and the liberality with which they enable their Engineer Officers to perfect themselves in their profession, he is certain, that it is only necessary that these defects should be clearly pointed out, in order that they may be immediately remedied. He is aware, that part of the system of attack he has laid down may be open to objection, but he trusts that the principle on which it is grounded will be acknowledged to be correct, and therefore, that the whole will be indulgently received.

The Author has great pleasure in publicly acknowledging the assistance he has received from all his Brother Officers, who have had it in their power to forward his present object, and in particular he must express the obligations he is under to the late Captain Coventry, and to Captain Anderson, of the Engineers, who have provided him with much valuable information on different points, since the commencement of his undertaking, and of whose advice he has largely availed himself.

Whatever opinion may be formed of the present Work, the Author trusts, that the motive, which induced him to undertake it, will be considered praiseworthy. It was an ardent desire to see the Army, he feels it a pride to belong to, as distinguished in one branch of warfare as another; as victorious, when set down before the strongest Forts of the Natives,

as they have always been, when charging the most overwhelming Battery on the plain; and his anxiety is increased by a conviction, that the deficiency in the Department to which he belongs, has been the only obstacle to this desirable object. He regrets that the subject has not fallen into hands (of which in his own Corps there are many) who would have done it more justice, but it is to be hoped, that so good a cause will not suffer from the weakness of the advocate. He has only to observe in conclusion, that as this Work would not have been undertaken, but for the kind and flattering assurances of the distinguished Officer, under whose command he was then serving, so would it never have seen the light, but for the encouragement received from him and other Friends, whose opinion in favour of it may, he fears, have been too much biassed by feelings of personal regard towards the Author.

MADRAS,
February 14*th*, 1822.

SIEGES OF THE

MADRAS ARMY,

&c. &c. &c.

CHAPTER I.

OF AN INTRODUCTORY NATURE.—THE PROGRESS OF FORTIFICATION IN EUROPE TRACED.—ITS IMPERFECT STATE AMONGST THE NATIVES OF INDIA.—GENERAL OBSERVATIONS ON THE DEFECTS OF THE ENGINEER DEPARTMENT IN THE COMPANY'S SERVICE, AS FAR AS REGARDS THE DUTY OF SIEGES.

THE Author of this short work, although young in his profession, has had some experience himself, and has always been anxious to profit by that of others. A strong sense of the benefit, he would have derived, even from such a collection, as that, which he has now been able to make, first suggested to him the idea, that his leisure hours might be well employed, in endeavouring to give that advantage to others, which he had so often regretted not possessing himself. Should he succeed in adding to the Library of his military friends, a short Tract, in which they will find, in a portable form, that information, which would otherwise have re-

CHAP. I. mained shut up in portfolios, or in offices, and which consequently would have been unavailable at the moment of emergency, his design will be fully accomplished. But he has said enough: his subject is fortunately one, which demands conciseness, and would be injured by an attempt at fine composition, to which he is unequal. He proceeds therefore directly to his task.

The variety of construction in the Fortresses of India, the character of the Garrisons, sometimes bold, obstinate, and enthusiastically brave, at other times timid, irresolute, and disheartened by trifling reverses, together with our own frequently imperfect means of attack, are circumstances, which have constantly obliged us to depart from the established rules laid down for the attack of fortified places; and are the causes that our Siege History in this country so often exhibits results, different from what would be calculated upon, by those who are only accustomed to the regularity of this warfare, as carried on in Europe. The Science of Fortification is here almost in its infancy. With the exception of those built by ourselves, or by other European Powers, who have at different times obtained a footing in India, and of a few, belonging to Native Princes, which have been constructed, or improved, by European Engineers in their service,

the Forts in India, are nearly what places of defence were in Europe, four centuries ago; and, therefore, a brief review of the rise and progress of the art of Fortification, in the latter quarter of the Globe, may serve to illustrate the comparison I wish to make, between Indian and European Fortresses, so far as regards their relative strength at the present moment.

In periods of remote antiquity, when the means of attack were as rude as the defences which they were meant to destroy, a town surrounded by high walls, gave its inhabitants ample security against an enemy; but when some degree of science was introduced in the attack, these defences were of little avail, and an improvement was found necessary. The first step towards it was the addition of round or square towers, to the angles and other parts of the walls; but these towers, though they commanded the enemy's approaches while at a certain distance, ceased to be of use when he reached the ground at their base, which they left undefended, except by the uncertain fire of small arms through loop-holes. They therefore gave place, after the introduction of artillery, first to Redans, and afterwards to Bastions, which by establishing a flanking fire remedied this defect; but which were at first made very small, and generally at a great distance from each other, and were therefore unable

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Such was the state of Fortification in Europe, in the middle of the seventeenth century, when Pagan undertook, in a Treatise published in 1645, to reduce to order these various and opposite theories, and to free them from the errors and intricacies with which they abounded; and it was not until this period, when he laid down on sound principles, certain rules for the dimensions and relative position of the different parts of a Fortress, that Fortification could be said to have become a science. Since that period, such great and rapid improvements have taken place in this art, that it may now be allowed to have reached a very high degree of excellence, although no method has yet been discovered of rendering a fortress impregnable.

The natives of India have made but little progress towards this perfection. They do not seem to be aware of the importance of that maxim, which is the ground-work of European

Fortification, namely, "that every work of a Fortress should be defended or flanked by some other." Their system, if such it can be called, is that of a simple inclosure, consisting of a continued wall, with round towers at intervals, the defects of which have already been noticed. There appear to be no determined rules for the profiles of these works, nor for the distances to be preserved between the several towers; which particulars vary so much, in almost every Fort, that it would be impossible to attempt to fix a standard for either. Such are the works, by which almost every village in India is protected, but to some of their more important places, they have added one and sometimes two ditches, together with outworks, which render regular approaches necessary. The great depth of these ditches might constitute an obstacle, not to be overcome without some difficulty, were not this advantage in a great measure neutralized, from the circumstance of the bottom generally containing *dead ground* close to the scarp, to which the besiegers, after having made their descent int the ditch, may therefore attach their miners with perfect safety. But defective as the Forts of India are in their construction, and inferior as they are to those of Europe, it is far from my intention to represent them as contemptible. Experience, which we have bought at some places by de-

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There are no traces of the Indians having ever constructed Fortifications different from those of the present day, and as they are in all things the slaves of custom, it would perhaps be no easy matter to induce them to alter a method, sanctioned by the practice of their forefathers: but the successful, or at least, prolonged defences, which their Forts have almost always made against native attacks, and sometimes even when assailed by Europeans, possessed of superior science and equipments, afford a better and more probable reason for their reluctance to change; and these would almost warrant the fallacious conclusion, that they need no improvement, were it not, that we have sometimes called forth all our energies, and by the speedy capture of the most esteemed native Fortresses in India, have proved how unequal they are to their object.* It is to be

* These energies, however, it must be observed, have generally been displayed, not in the scientific, but in the overwhelming character of our attacks, and we seem in these very instances to have acknowledged the superior construction of the Native Forts, and to have admitted our inability to take them in the usual method, by bringing

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regretted, that instances of this kind are comparatively rare, and while we can dwell with proud satisfaction on the sieges of Seringapatam, Hatrass, and Asseerghur, there are on the other side of the picture but too many places, from the strongest Forts to the rudest Village Ghurries,* in the attack of which, whether from a contempt of our enemies, or from an ill-timed spirit of economy, we have neglected to employ the proper means of effecting our object; and have in consequence experienced repulses, or purchased our success with an unnecessary

against them an enormous train of artillery, much beyond what is deemed necessary for the attack of the strongest European Fortress, as if the only way to reduce them were by making the place *too hot* for the Garrison to live in. This remark is more particularly applicable to Hatrass, of which the reduction was literally effected in this way; but it would be impossible (putting aside all considerations of the expense attending such a method of attack) to bring a train, such as was displayed there, against every other fort which was disposed to resist us; and the Natives of India have fair ground to suppose, that without the aid of such a train, we are unable to reduce them. There cannot be a doubt, but that this idea prevails to a certain extent, and it is a general opinion, that, however superior we are to them on the plain, we are only on an equality when we have walls to attack; and our repulses at Bhurtpoor, are to this day brought forward, as a proof of our inferiority in this branch of war. It is the object of the present work to shew that it remains with ourselves to destroy this opinion.

* Keeps or small citadels.

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sacrifice of lives; but it would be painful to pursue this subject, nor is it necessary for me at present to enlarge further upon the system we have generally followed in the attack of Indian Forts, as it will be fully exemplified in the sieges about to be recorded. The Native method of carrying on such operations, if briefly stated, may, however, be interesting, as it will show how completely in this, as in other countries, the arts of attack and defence have kept pace with each other, in their general efficiency.

The Natives appear to be utterly ignorant of the advantage to be derived from attacking a salient angle, and of the art of conducting approaches by Sap; and, generally speaking, they are also unacquainted with Mining. When one of their armies sits down before a place, the object appears rather to be to harrass the besieged, and weary them out by a strict blockade, than to effect an entrance by breaching the walls: for although guns are used, they are placed at such a distance from the town, out of musket shot, and not always in battery, that their effect is uncertain, and even this desultory fire is only kept up at intervals during the day; for at night, to guard against the consequences of a sally, the guns are always withdrawn to the camp; and this ridiculous process is continued till the besieged are tired out, and a compromise

is entered into.* The Natives of Hindostan, however, of a particular cast, are said to be CHAP. I.

* An amusing account of the siege of Doonee, a small fort, garrisoned by two or three hundred Rajpoots, which resisted successfully for upwards of a month, the utmost efforts of Dowlut Row Sindiah, backed by a numerous artillery, and an overwhelming force, is given in "Broughton's Letters from a Mahratta Camp." At the commencement of the siege, the operations were under the direction of Baptiste, who commenced a mine, and as there was no gun in the place, established posts round it within musket shot: but Baptiste being ordered away on some other duty, the mine was abandoned. After this the garrison made several sallies, in one of which they succeeded in carrying off into the fort two guns: after which, to avoid a similar accident, the besiegers withdrew their guns every night from their batteries. When the shot at length began to tell on the walls, and to destroy more than the garrison could build up at night, they commenced a ditch on that side, and carried it on in the face of, and in despite of the besiegers. This creditable defence was at last brought to a close, in the usual way, by a composition being entered into with the besiegers. The siege of Darwar, in 1797, is too well known to require recapitulation, and the following account of the siege of Beescondah, a town surrounded by a wretched mud wall, situated in the Nizam's dominions, and attacked by a part of the Prince's force, and related in the words in which it was given to the author, by a friend who happened to be an eye-witness of the commencement, will well complete this picture of Native attacks. "The "besieging army consisted principally of horse, and about "four guns, and arrived before the place the same day on "which we were passing it, in January, 1815. They had no "defences for their guns in the shape of battery, or trenches, "which were drawn out in the open plain, at the distance of

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expert Miners, and the Artillery attached to Scindiah's regular brigades being well organized, more science may have been displayed where these have been employed; but the picture I have drawn is certainly not an exaggerated one, as far as regards the system usually pursued by other Native Powers, who have not had these advantages. Hyder and Tippoo had French Engineers in their service, by whom their sieges were generally conducted, but when this was not the case, the same ridiculous and impotent mode of proceeding, that has been described, was followed by them.

But to return to the subject: It is evident

"about 50 yards asunder. The besiegers' camp was placed "in low ground some distance in rear. They had a Portuguese, who levelled each gun himself, and appeared to "have the direction of the attack. They fired about once in "a quarter of an hour, and if by chance a shot struck any "part of the wall, so as to raise a dust, the air resounded "with acclamations in praise of the old Portuguese, who "seemed in no small degree flattered thereby. After about "three days, the inhabitants of the town, by a masterly "manœuvre, broke down the bund of a tank, and swamped "the camp of the besiegers, who were obliged to move their "ground. The siege was brought to a conclusion in a curious "way. A small party of Europeans were pitched near the "place about three weeks after, and five or six of them stole "out of camp at night, to assist the besiegers, and fired the "guns so fast, that the town was found evacuated next "morning. Two of the Europeans were wounded in this "frolic."

that without proper means, science in the attack of places can be of no avail, and when it is considered how utterly unprovided with these the siege department of the three Presidencies has, until very lately, been; it will be found less extraordinary that reverses have happened, than that we should have ever been successful. These means were formerly as much neglected in England, as they have been in our Eastern possessions, so that whenever we came in collision with the Continental Powers, our inferiority in this branch was severely felt. During the Peninsular campaigns, the inefficiency of a body of officers, when unassisted by men trained to siege duties, was more fully displayed; and in consequence of the representations of the Duke of Wellington, a Corps was raised, and an Establishment formed for their instruction, under the superintendance of one of the ablest and most distinguished officers in the Royal Engineers. By the excellent system pursued at this Institution at Chatham, every man is made practically acquainted with the nature of his duties, before he is sent abroad, and the Corps of Royal Sappers and Miners now certainly yields to none of the older established ones, of the same nature, in other services, either in science, or in any other requisite for soldiers of this description.

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The Directors of the East India Company are not ignorant of the advantages that would be derived, from having this branch of their army on a more efficient footing, than it has hitherto been; for of late years all their Officers of Engineers, before leaving England, have been placed under the orders of the Officer above alluded to, in order that they may be more fully instructed in that part of their duty, which relates to the attack of places; and recently a few recruits, trained at Chatham, have been sent out to Bengal, where a permanent Corps of Sappers and Miners has been raised, and a large increase made to the Engineer Corps. The sister Presidencies have not, as yet, shared in these benefits, although the principle has been established, and the necessity of improvement (in time of war at least) acknowledged; for, during the last campaign in the Deckan, Lieutenant Davies, the Senior Engineer of the Madras Establishment, with Sir Thomas Hislop's army, was allowed (as a temporary measure) to recruit 30 Europeans, and 50 Pioneers, for this Service, who were denominated Sappers and Miners. These men, it must be observed, who only volunteered from the inducement of increased pay, were, when they joined that Officer, wholly ignorant of the duty they were to be employed on, and the European part of them were so far from feeling

that *Esprit de Corps*, which should be the main spring of a soldier's actions, that they at first seemed to look on their duty as a degrading one; but, notwithstanding all these disadvantages, and numerous others, attendant on every Corps, professedly raised only for a temporary object, they were brought to a state of considerable efficiency, by the exertions of their Commanding Officer; and limited as was their number, it may be fairly said, that the service derived from them the greatest advantage, and the favourable testimony of all the officers, under whom they were employed in the field, as to their utility, shows how much more might be expected from a regular Establishment of Engineer Soldiers. The Madras Pioneers, who (with the above exception) were, during the late war, the only men at the immediate disposal of the Engineers, for the duties of that department, possess, in a peculiar degree, every necessary physical qualification; but being never (except in times of actual warfare) employed in Military Works, at least of this description, their instruction in these duties commences, at the very moment that practised men are required; and if the experience of a campaign may have made them somewhat more perfect, another war finds them as ignorant as before, or perhaps replaced by a fresh set of men; and the trenches again become the school of

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instruction for the most simple works of a siege. It is but too common a feeling, to ascribe a failure against a Fort, to want of skill in the Engineer, who conducts the operations; but let it be remembered, that in his plan of attack, not only the quantity of stores necessary, but also the qualifications and skill of the men who are to act under his orders, must be taken into account; and, from a deficiency in both, we have frequently been obliged to remain and breach at a distance, when we ought to have been at the foot of our enemy's walls. It is surely no argument, that because these Forts are rude, we should not employ against them the greatest science, and every means in our power; that because our successes have hitherto been as numerous as our reverses, we should be content with this mediocrity of fortune; and should continue to incur the risk of adding to our failures, by a neglect of means, which would insure a certain and successful result to all our siege operations; and finally, that we should hazard, before every petty place we attack, our reputation, and the lives of our soldiers, upon the chance of the Garrison not possessing a due degree of courage and resolution. Let the two essentials be united. Let Science be aided by efficient Means, and we shall render our enemies' situation as unsafe when sheltered by walls, as it is when opposed

to us on the plain: we shall prevent that gallantry, which overlooks difficulties, from destroying itself; and this page of our Indian History, which has hitherto been a chequered one, and sullied by defeats as often as it has been adorned by victories, will then become like every other, an unvarying record of success.

The system which should be followed in besieging the Native Forts of India, must of course differ, in some degree, from that which would be necessary in the attack of more regular Fortresses. The reasons have been stated in the beginning of this Chapter, nor can any thing tend more to show all the varieties best suited to this warfare, than an accumulation of facts, from which every officer, who may be employed in this service, can draw his own conclusions, and adapt them to his own case. To furnish these is the chief object of the Journals contained in the body of the present Work, to which the Author has added a concluding Chapter, containing a few reflections on the nature of the operations, which would, in his opinion, generally insure success, and also on the formation of a Corps of Engineer Soldiers for the Madras Establishment.

CHAPTER II.

FORMATION OF THE ARMY OF THE DECKAN.—SIEGE OPERATIONS OF THE FIRST AND SECOND DIVISIONS.—NAGPOOR.—TALNEIR.

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IT is well known that the object of the war undertaken in 1817, by the British Government in India, was the destruction of the Pindarries. These people have been so often and so well described by different writers, that it is needless, nor would it indeed be within the scope of the present Work, to enter into a particular account of their rise and origin.

Brief account of the Pindarries.

It may be observed of them in a few words, that almost from time immemorial, they have been attached as a distinct class to Native Armies, which they have followed, without receiving pay, or being actuated by patriotism (the general inducements of people to become soldiers), and that they have been so far from wishing to be distinguished for their prowess as fighting men, that they have never sought even for plunder, their sole occupation, but where it could be obtained without danger. Such was the humble origin from which the Pindarries rose, to assume the character and features of a distinct and separate nation, governed by Chiefs independent of each other, but acting in concert, and to subdue whom, the whole weight of the British power was called forth.

Two causes had combined to operate this change, and to raise a despicable horde of plunderers into importance—1st. The neutral and unintefering system of policy prescribed by the British Legislature to the Indian Government, and closely pursued after Lord Wellesley's administration, by which we were prevented from checking the growth of this tribe, till we had suffered from their inroads in the devastation of some of our finest provinces. 2nd. The weakness of the Native Princes, whose standard the Pindarries nominally followed, and by whose policy they were fostered and encouraged, not only for the sake of the booty in which these Princes shared, but as being the only means by which they could weaken, or perhaps destroy the British power in India, for to that pitch had their hopes soared.

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To crush them the whole energy of that power was put forth, and had the Pindarries stood alone and unassisted in the contest, there would have been little to record, but their efforts on the one hand, to escape from the net, which we had drawn round them, and our combinations and endeavours to enclose them on the other. But the opportunity which was thus offered to the Native Princes was too favourable to be neglected. By the destruction of the Pindarries the British supremacy would

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be established and secured beyond their power to subvert, and it was therefore resolved to support them.

Combination of the Mahrattas.

This combination, to which all the Mahratta powers subscribed, had then for its object to free themselves from the bondage of the British yoke, and to assert and maintain the Mahratta independence. An Englishman's heart, though the interests of his country would suffer by their success, must pronounce their object a legitimate one, and their struggle for independence praiseworthy, but not so the means which they employed to further it: these would convey disgrace to the worthiest cause, and must meet with universal and unqualified condemnation.

It is difficult indeed, to imagine a scene of greater treachery and duplicity, than was exhibited in all the Native Courts, up to the very moment when they threw off the mask of friendship, by which they had endeavoured to deceive our residents, and under which they had hoped to conceal their enmity. Fortunately the measures which had been taken to give effect to the campaign, enabled us to resist successfully, in every instance, their treacherous commencement of hostilities; and their treachery is hardly to be regretted, since it gave occasion to some of the most splendid achievements which have graced the progress of the British arms in

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India. Seldom indeed, or never, had a British army of such magnitude been assembled, as was put in motion on the present occasion, when the forces of the three Presidencies combined, to secure the destruction of the Pindarries, and to provide against any attempts of the Native Powers to protect them. The Bengal army, to whose share it was expected that the most active part of the operations would fall, is estimated by Colonel Blacker, to have consisted of more than 40,000 fighting men; and being commanded by the Governor-General in person, was denominated the Grand Army. The Madras troops took the field under the designation of the Army of the Deckan, while a part of the Bombay Army was put in motion from the side of Goozerat, to co-operate in the general objects of the campaign; and in the course of the war, after our rupture with the Peishwah, another division of the Bombay Army was employed in reducing that Prince's territories in the Concan.

Great preparations for war made by the Governor-General.

Strength of the Grand Army.

For reasons which have been sufficiently detailed in the Preface, this Work has been confined to a relation of the Sieges undertaken by the Army of the Deckan; so that an account of the formation and movements of the Bengal and Bombay Armies would be irrelevant, nor will those of the Deckan Army be detailed, further than as they may be necessary to pre-

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serve a connection between the different sieges which were undertaken.

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Detail of the Army of the Deckan.

The Army of the Deckan was composed of six divisions; of these the first was under the personal command of His Excellency Sir T. Hislop, the Commander-in-Chief of this army; the second was under the command of Brigadier-General Doveton; the third division was commanded by Brigadier-General Sir John Malcolm, who was also Agent to the Governor-General, and had charge of our political interests throughout the Deckan; Brigadier-General Smith had the command of the fourth division, consisting of Bombay and Madras troops; and the fifth division, which was almost entirely composed of Bengal troops, was under the command of Lieutenant-Colonel Adams. The reserve division was commanded by Brigadier-General Munro. The strength of these divisions at the opening of the campaign was as follows:

FIRST DIVISION,

Commanded by His Excellency Lieutenant-General Sir Thomas Hislop, Bart.

7 Companies of Europeans.
6 Regiments of Native Infantry.
1 Squadron of Dragoons.
2 Regiments of Native Cavalry.
2 Horse Artillery Guns.
8 Foot Artillery Guns.
4 Companies of Pioneers.

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SECOND DIVISION,

Commanded by Brigadier-General Doveton.

80 Sappers and Miners.
8 Companies of Europeans.
6 Regiments of Native Infantry.
1 ditto ditto Cavalry.
4 Companies of Pioneers.
8 Horse Artillery Guns.
30 Foot Artillery Guns.

THIRD DIVISION,

Commanded by Brigadier-General Sir J. Malcolm, K.C.B.

2½ Regiments of Native Infantry.
1 ditto ditto Cavalry.
The Mysore Horse.
Horse Artillery, 4 Guns.
Foot Artillery, 6 Guns.

FOURTH DIVISION,

Commanded by Brigadier-General Smith, C.B.

2 Regiments of Europeans.
8 ditto Native Infantry.
1 ditto ditto Cavalry.
The Poonah Auxiliary Horse.
Horse Artillery, 10 Guns.
Foot Artillery, 17 Guns.
4 Companies of Pioneers.

FIFTH DIVISION,

Commanded by Lieutenant-Colonel Adams, C.B.

8 Regiments of Native Infantry.

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3 ditto ditto Cavalry.
Horse Artillery, 4 Guns.
Foot Artillery, 18 Guns.

RESERVE DIVISION,

Commanded by Brigadier-General Munro.

1 European Flank Battalion.
2 Regiments of Native Infantry.
4 Companies of ditto Rifles.
2 Squadrons of Dragoons.
1 Regiment of Native Cavalry.
Horse Artillery, 10 Guns.
Foot ditto 18 Guns.
4 Companies of Pioneers.

The total Army of the Deckan, including the Goozerat Division, commanded by Brigadier-General Sir W. G. Keir, a brigade at Secunderabad, His Highness the Nigam's troops called the Berar Brigade, and the irregular and auxiliary troops, which have not been enumerated in the above detail, is stated by Colonel Blacker to have amounted to 70,400 fighting men.

Imperfect state of the Battering Train,

The Battering Train and the Engineer Department alone, were utterly disproportioned to the strength of the army, to its general completeness, and to the magnitude and importance of the service on which it was to be employed. For the deficiency in the former it would be difficult to account. The long rows of un-

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mounted cannon of different calibres, laying useless in all directions, along the ramparts of our Fortresses, sufficiently attest that there is no want of guns to form the largest Battering Train, if it were thought advisable to make use of them; and to a person acquainted with the wealth of our well-stored Arsenals, it will appear matter of astonishment, as well as regret, that what was dignified, with the appellation of a Battering Train, with the first, second, and third divisions of the Army of the Deckan, consisted of only two 18-pounders and two 12-pounders, two 8-inch mortars and two 8-inch howitzers.

and of the Engineer Department.

The Engineer Department with these divisions was similarly constituted. A few scaling ladders, intrenching tools for fifty men, with two or three platform carts containing small stores, formed the Engineer Park. None of the peculiar tools or implements required in Mining, or in the Sap, were provided. Nor was there any equipment of Pontoons, or of other stores useful for the Military Passage of Rivers. These, although thought indispensable in Europe, have never been supplied in India, either because they have been deemed unnecessary, or because it may have been thought that the advantage to be derived from them would not sufficiently repay the expense of transporting them.

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To those, who are acquainted with the large proportion of Engineer's stores of every description, usually carried with the Continental armies, and recently with our own, towards the close of the Peninsular war, and subsequently in the operations of the Duke of Wellington in France, the above detail of stores, accompanying the Madras divisions, must appear insignificant beyond expression. In the other divisions, composed partly of Bengal and Bombay troops, and furnished with equipments from those Presidencies, the Battering Train and Engineer Department, although very imperfect, were more respectable than with the three former divisions. The Battering Train with the fourth division and reserve, consisted of six 18-pounders, the same number of 12-pounders, besides heavy mortars and howitzers, and the Engineer Park was also tolerably supplied.

Ignorance of the Soldiers attached to the Engineer Department.

The want of Engineer Soldiers at the opening of the campaign, and the steps which were taken to obviate this evil, by embodying a few Europeans and Native Pioneers, have been detailed in the preliminary Chapter; but it may not be amiss to repeat here, that the Europeans knew nothing of the duties they were thus suddenly called on to perform, and that the Natives, although accustomed to work, were as ignorant of every branch of Engineering as the Europeans. In the fourth, fifth, and reserve divisions, even

this assistance was wanting, and the Engineers had to depend for all siege operations solely on the Pioneers.

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Want of means for the Passage of Rivers.

The first movements of the troops in August, brought into prominent notice, the imperfect state of the Department in one of its most important branches, and the third Chapter of Colonel Blacker's Memoir abounds in instances of the progress of the troops being delayed by the numerous small streams which intersect this part of the Deckan. The aid of the Engineer Department to overcome these obstacles was only called for in one instance, when they were sent forward in September, to prepare means for throwing the advanced division over the Taptee.

As there were no Pontoons, and no timber for forming the superstructure of a bridge, if it had been attempted to construct one with the common country boats, which were to be procured on the river, a flying bridge was the only resource, and this was effected by drawing a strong sheerline across the river, along which the boats plied. But even this bridge proved useless, for the advanced division was stopped in its progress from Jaulnah towards the Taptee, by a small intervening stream (the Poornah), for a passage across which, no means had been provided.

Immediately after this operation, the Engi-

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neer Department returned to Mulkapoor, where they remained with the Battering Train, in readiness for the siege of Asseerghur, which was then in contemplation; but the hostilities, commenced by the Rajah of Nagpoor, obliged Brigadier-General Doveton to recal them, and they joined that officer at Oomaroottee, in full march to Nagpoor, which place they reached on the 12th by forced marches; the Battering Train having been thrown into Ellichipoor.

Negociation with the Rajah of Nagpoor.

The repulse received from our handful of troops at Seetabuldee, had induced the Rajah to negociate for terms, and after considerable delay, he had come in to the Resident on the morning of the 16th, promising that his guns should be delivered by twelve o'clock; but his troops, who were in possession of the city, and had occupied a position outside, defended by upward of fifty pieces of cannon, seemed resolved to try their fortune once more.

The British Force was brigaded as follows:

Cavalry Brigade	Horse Artillery. 6th Bengal Native Cavalry. 6th Madras Native Cavalry.
Right Brigade .	6 Companies H. M. Royals. 2d Batt. 13th Native Infantry. 1st Batt. 22d Bengal Native Infantry. Flank Comps. 1st Batt. 2d N. Infanty.

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Center Brigade	1 Company H. M. Royals. 2d Batt. 24th Native Infantry. 1 Brigade Horse Artillery.
Left Brigade . .	Sappers and Miners. 1 Company H. M. Royals. 1st Batt. 11th Native Infantry. 1 Company 2d Batt. 24th N. Infantry. Foot Artillery.

The baggage and stores of the division were placed at Seetabuldee, under the protection of two battalions of Madras Native Infantry, and a battalion of the Nizam's Infantry, while the Berar Infantry in the service of our Ally the Nizam, was stationed in rear of the line.

The enemy on the 15th (the day before the Rajah came in) occupied a position with their right flank terminating on the Rajah's arsenal (two inclosed squares of masonry) and defended by a battery of 14 guns; their left, which was thrown forward at right angles to their general front, rested on the village of Baboolkairah, and was also defended by a heavy battery, and their whole line was strengthened by a Pettah in their rear, which might be reckoned part of the suburbs of the city. The arrangements for the attack of the enemy while in this position, and while it was doubtful whether the Rajah would accept the proffered terms, were as follows:—The left brigade was ordered to storm the Arsenal, which was to be effected by turn-

Battle of Nagpoor.

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and immediately afterwards the batteries on the enemy's right. The latter were stormed by the right and center brigades; and the reserve, at the same time carried the battery near the tank. The cavalry attacked the enemy's left flank, and, having carried the battery defending it, pursued the enemy, who fled in all directions, seven miles.

Preparations for the attack of Nagpoor.

Immediately after the battle which has been thus briefly described, a body of the Nagpoor Infantry, estimated at 6000 men, and of whom one third were Arab mercenaries, occupied the city, and as they refused to evacuate it, but on very unreasonable terms, it became necessary to dislodge them by force of arms.

That City described.

Nagpoor is situated in an extensive plain, and is, strictly speaking, an open city. A rampart in the usual Native style, with occasional round Towers, had on some former occasion been commenced, but has in no place been carried to a greater height than eight feet, and is in general less. The extent of the city, as defined by this unfinished rampart, is scarcely three miles, but the suburbs, which run close up to the city wall, are not less than seven miles in circumference, extending chiefly on the North and East sides, and not exceeding 400 yards in depth on the West and South. (See Plate II).

The strength of this position, and on which the Arabs depended, consists in the numerous

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stone buildings, situated in different parts of the city and suburbs, most of which are capable of defence. Of these the most important is the old Palace, an extensive square work flanked with towers, and of a considerable height. It is situated towards the S. W. angle of the city, at a distance of about 250 yards from either the South or West side; and as from its central position, and superior height, it in some degree commands the whole city, it necessarily became the object of our attack. From the foregoing description of its situation, and the extent of the suburbs around it, the choice of the direction of the attack evidently lay between the South and West sides.

On the former, immediately outside of the unfinished wall, the Toolsee Baug, an inclosure with some strong buildings, which could be easily gained, would afford considerable facility to an attack; but from that point the advance would be difficult, through narrow winding streets, defended by a number of strong houses on both sides, and it would be previously necessary to carry the Grand Fort (marked O), an old Citadel capable of defence, which flanks the right of any approach directed on the Palace from this quarter.

On the West side, the bank of a large Lake called the Jooma* Taloo, affords an advantage

* *Jooma* signifies Friday, and *Taloo* is the Hindostanee wood for a Lake.

to assailants not to be overlooked This Lake, or as it is termed in Indian phraseology, this Tank, which extends from the base of the Seetabuldee hill to the suburbs on the West side of the city, is in shape nearly a parallelogram, about 1300 yards long and 500 wide. The banks or bunds, formed of masonry and earth, are sufficiently high to afford cover to troops, especially on the city side, where they command the whole intermediate space between the Tank and the Palace. The principal and widest street in the city runs immediately from the East bund to the Palace, and at about 350 yards from the former, passes through an arched gateway of brick, called the Jooma Durwasee, which is situated immediately behind the city wall, in a portion of an old rampart which remains complete. The main street, leading through this gateway, is bordered only by low shops, and affords a comparatively easy access. This side was therefore considered the most eligible for the attack, although it would be necessary to breach and occupy the Jooma Durwasee, which intervened between the bund and the Palace.

PROJECT OF ATTACK.

Under these circumstances, it was proposed, that the first approach should be made along the South side of the Tank, and having intrench-

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ed the East bund of it, to convert part of it opposite the Jooma Durwasee into a battery for destroying that work; and this was deemed essential, although the city wall, 100 yards to the right and left of it, was not eight feet high, and might have been easily occupied, because, from the gateway the revetment of the Palace was seen to the very bottom, while from any other part, it could hardly be seen at all. The Jooma Durwasee being breached, it was proposed to make a lodgment on its ruins, and in the walls and houses on either side, and from thence to batter the Palace. This edifice once in our hands would in all probability oblige the enemy to evacuate the city; but in the event of their persevering to hold possession of any other principal buildings, it would then become necessary to reduce them by bombardment, or by breaching, according to arrangements to be subsequently formed, the information regarding the interior of the city being only sufficient for the formation of a plan to gain possession of the Palace. All the battering train, except a few howitzers, having been thrown into Ellichipoor; on the rapid advance of the Division from that place, a certain number of the enemy's guns, taken on the 16th, were selected for the operations about to commence. They were of inadequate calibre, being principally 6 and 7 pounders, as the large guns were considered unsafe.

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December the 19th.

The requisite materials having been prepared, the first advance was made during the morning, from the Seetabuldee hill, to the point where a battery for two howitzers for bombarding the city, and an intrenchment for a sufficient number of men for its security, were constructed. This work, which brought us to within about 1000 yards of the Palace, was completed in four hours without any loss.

PLATE II.

December 20th.

This morning a second advance was made along the bund of the Tank; this shewed how very inadequate the means in the Engineer Department in this country are to the duties of a siege, for the operation, though simple, was performed with difficulty, owing to the Pioneers* on the working party, who could not be brought forward with the requisite materials to com-

* The Author is obliged, in justice, to state that this (which with the rest of these details, is extracted from the Journal of the Senior Engineer) is the only instance he has heard of any misbehaviour on the part of the Madras Pioneers, who have long been distinguished for their cool steady bravery; and on one or two trying occasions, in which he has himself had an opportunity of seeing them employed, they have sustained that character in a way that could not be surpassed by Europeans, or any troops in the world. The present can only be accounted for by supposing that they were new to their work, unpractised, and unaccustomed to the Engineer Officers, under whom they were employed.

CHAP. II. 1817. PLATE II.

plete the Establishment, until the European Sappers and Miners had intrenched themselves.

During this day, the whole of the East bund of the Tank was intrenched, and Battery No. 1, of four guns, to bombard the town and dislodge the enemy from different buildings, was traced out and completed; and in the operation an Engineer Officer was slightly wounded. When the battery opened, the detachments under Colonel Scott and Major Pitman, advanced and occupied the positions B and C, and a company moved from B to A.

During the night, Battery No. 2, to lay open the gate and destroy the defences in its neighbourhood, was completed for five of the enemy's captured guns.

December 21*st.*

All operations were suspended during some negociations which were carrying on.

December 22*nd.*

The trenches were perfected, and the enemy dislodged from the houses lying between the bund and the gateway. During the evening, Battery No. 2 opened on the defences of the wall of the city, opposite the trenches, and on the gateway, to batter it. Although the guns were equal to this, it was evident, after a few salvos, that it would be impossible to breach the Palace with them, at that distance.

December 23rd.

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The breach of the Jooma Durwasee was rendered practicable, and materials prepared for forming a lodgment in it. A good deal of rain fell this night.

December 24th.

Materials for forming a lodgment having been prepared, an attack was ordered to be made on the Jooma Durwasee, at 12 o'clock. Colonel Scott and Major Pitman were directed to make a simultaneous advance at the same hour, to dispossess the enemy of several strong houses in their front, and to procure better cover for their troops. For this purpose the former was to occupy Toolsee Baug, and the latter a large extensive building (No. 5).

Arrangements for the assault.

The column for the storm of the breach, consisted of 23 European Sappers and Miners, one company H. M. Royal Scots, and five companies of Native Infantry, with the Pioneers provided with the necessary materials and intrenching tools for forming a lodgment; in the trenches was a reserve of one company of Europeans, and four companies of Native Infantry.

Failure of the attack.

On the signal being given, the different parties advanced, and Colonel Scott and Major Pitman succeeded in occupying the positions assigned to them; but the attack on the breach failed, notwithstanding it was perfectly practicable, as the Pioneers who carried the mate-

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rials got into confusion, and the Europeans who led, could not be persuaded to pass the top of the breach to annihilate the Arab party guarding it, who were so completely surprised, that they were found drinking coffee and warming themselves around a fire; but they soon collected in great bodies, and obliged the column, after remaining at the top of the breach for some time, to retire with considerable loss; the Officer who commanded the company of H.M. Royals, and the only one with them, being killed in the inside of the breach, the Senior Engineer severely wounded, and a large proportion of the Sappers and Miners disabled.

The enemy agree to evacuate the place.

After this failure, it was decided to wait for the battering guns, and in the interim the Arabs negociated to evacuate the city, receiving all their arrears of pay; and it was agreed that a British Officer should be sent with them as a safe conduct to the frontiers of Khandesh.

The state of the Engineer and Artillery Department, at the attack on Nagpoor were—

ENGINEER DEPARTMENT.

Lieut. Davies, Command^g. Engineer, *severely wounded.*
Ensign Nattes, - - Staff - - *slightly wounded.*

SAPPERS AND MINERS.

3 Serjeants 3 Corporals 28 Privates	Europeans.

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3 Havildars
2 Naigues } Natives.
28 Privates

The Engineer stores consisted of 1400 sand bags, and the *only intrenching tools* were such as could be collected from the *Regiments of the Line*.

ARTILLERY.

Lieutenant-Colonel Crosdill, Commanding.
Major Weldon, Commissary of Stores.
Major Goreham, *wounded slightly*.
Captain Poignand, Brigade Major.
Lieutenant Maxwell.
„ Coull, *wounded severely*.
„ Ley.
„ King.

6 Serjeants.
69 Rank and File.
2 Heavy $5\frac{1}{2}$-inch Howitzers.
1 Light ditto.
7 6-pounders
4 brass 7-pounders
1 ditto 12-pounder } the enemy's guns in Battery.
1 ditto 15-pounder

150 shells for the $5\frac{1}{2}$-inch Howitzers, besides the complement in the Tumbrils.

The ammunition used, besides the shells above-mentioned, was what had been taken from the enemy, which proved to be of a very bad quality.

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REFLECTIONS.

The failure before the open city of Nagpoor has given rise to great discussion, and the wisdom of the operations pursued has been much called in question, but it is to be apprehended, that these doubts have originated solely in the bad success which attended it, and not in any due examination of the merits or demerits of the plan.

Reasons for attacking Nagpoor on the West side.

The principal reasons, which induced the Commanding Engineer to propose the West side for the direction of the attack, in preference to approaching by the low ground which surrounds the rest of the city, were—1st. The excellent approach offered by the bund (or embankment) of the Tank, which afforded natural cover to within 550 yards of the Palace. 2nd. That owing to the superior height of the bund, the houses between our trenches and the city wall would be rendered untenable by the Garrison. 3rd. That the first batteries could be easily constructed by merely cutting embrasures through the bund; a consideration which, in the imperfect state of the Engineer Department, was of no small importance. There is no doubt that the Palace was the object to be gained, not only as the principal post, but as the easiest to be assailed, and if the propriety of opening trenches against it be conceded, the above considerations must appear conclusive,

as to the superior advantages offered by an approach on the West side; but it is against an ulterior part of the plan, that the strongest objections have been urged, and one writer, of deservedly high authority, has not scrupled to assert, not only that the occupation of the Jooma Durwasee was injudicious, but that it was undertaken against the Commanding General's better judgment, at the earnest solicitations of his Engineer. The first part of the question, as to the propriety or otherwise of the measure, affords reasonable matter for argument, but we may pass over the latter, as a gratuitous assertion, in direct contradiction to the tenour of the General's public dispatches, and which, even if founded on fact, could only tend to prejudice the fair investigation of the subject.

Lieut. Col. Blacker's strictures on the plan of attack noticed.

Lieut.-Colonel Blacker, the author to whom I allude, and who has bestowed upon the attack on the Jooma Durwasee his most unqualified censure, appears to honour with his approbation the previous operation of occupying the bund of the Tank, and also the ulterior object of obtaining possession of the Palace. Now as the Palace could not be breached from the bund itself, nor from any other point on that side, excepting the intermediate position of the Jooma Durwasee, an attack upon that position became an indispensable part of the general plan of operation, which seems to have been

CHAP. II. 1817. approved by Colonel Blacker himself. He has not favoured his readers by explaining what he himself would have suggested in preference to the mode of attack actually attempted; but it is evident, that after the bund was occupied with a view to operations against the Palace, it would have been the height of absurdity to have remained idle and inactive in the former position. In fact, after having beaten the enemy's army in the field, General Doveton had only one alternative: either to wait until the whole of his battering train and Engineer stores were brought up, which would have occasioned a delay of at least fifteen days; or to commence an immediate attack with the imperfect means he had upon the spot. He chose the latter, in preference, as the more vigorous measure, and after having made this decision, he could not, with any degree of consistency, have acted otherwise than he did.

To recapitulate, and state more in detail, the reasons in favour of the attack on the Jooma Durwasee, they were as follows:—1st. It was the only spot, from whence the bottom of the walls of the Palace could be distinctly seen, as at every other part a large mass of houses intervenes, without previously levelling which, it would have been impossible to effect a practicable breach. 2nd. There were no large buildings in front of the Jooma Durwasee,

sufficiently near to it, from whence our troops, after occupying that work, and lodging themselves also on the right and left of it, could have been annoyed by the enemy. 3rd. The establishment on the Jooma Durwasee could be made under the protection of our battery and trenches on the bund of the Tank. CHAP. II. 1817.

It has been asserted, on the other hand, that even had the assault on that position succeeded, the troops would have found no cover, but at the gateway, a very confined space, and within the city walls. But it has been forgotten by those, who urge this objection, that the space between the bund and the gateway was a suburb composed of low mud houses, every one of which would have afforded cover; that this suburb extended on both sides of the road sufficiently to lodge the whole Division, had it been thought advisable to occupy it; and that the low wall of the city itself, not eight feet high, was excellent cover, and could easily have been improved, so as to answer every purpose of a parallel.*

* The friends of Lieut.-Colonel Blacker, and of Lieut. Davies, the Commanding Engineer before Nagpoor, who was killed next year in the execution of his duty, must equally lament, that the former, in stating his objections to the plan of attack now under discussion, should have expressed himself in language by no means respectful to the memory of the latter. Whilst he acknowledges some of

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Remarks on the execution of the plan of attack.

The foregoing considerations will possibly lead to the conclusion, that the general plan was the most judicious, perhaps the only one that could be adopted. To some of the details objections might be raised. The utility of the lodgement made on the first day (at A), might be called in question; and the time which was spent on this operation, might perhaps have been better employed, by occupying at once the East bund of the Tank. Another arrangement of the storming party might have led to a different result. The leading men should have been directed to occupy, and obtain cover in the houses between our trenches and the gateway, and to the right and left of the latter; and the storming party would then have been better supported, and even if repulsed, much ground

those high military qualities, by which Lieut. Davies was distinguished, he applies to him the epithet "petulant," on an occasion, and in a manner, which to the general reader, unacquainted with either of the parties, will probably appear unworthy of the dignity of Military history. Lieut. Davies certainly possessed great firmness and decision; and when called upon as the Commanding Engineer of the Division, to give his opinion on points of duty, he did so with that plain dealing and energy, which characterised his manly and ardent mind; but assuredly no man was less deserving of the implied reproach of want of temper or of manner, which Col. Blacker has thus gratuitously thrown out against him, and which no doubt that distinguished Officer will be glad to cancel, for his own credit, if a second edition of his useful work should be required.

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would still have been gained. The party of Europeans should have been stronger, and they should have been fresh men. The company employed had been on duty twenty-four hours, and had been exposed during the whole of a cold night, in wet trenches, to a heavy rain; and these two circumstances, their small number, and the fatigue they had undergone, will perhaps be thought more naturally to account for their backwardness, than the reason assigned by Colonel Blacker, that "they saw no "advantage to be obtained," in going forward; a feeling fortunately little known to British troops, and which if a common one, would oblige a General, before he attempted any manœuvre, to submit the propriety of it, to the wisdom of his army for their decision. The misbehaviour of the Europeans on this occasion may be thought a delicate subject, and it would be so, if the reputation of one of the most distinguished Regiments in the service could be supposed to suffer, by the misconduct of a few of their number; and if that misconduct had not been nobly redeemed by the gallantry of their leader, which called forth from his enemies the highest encomiums, and to which they paid the only homage in their power, that of sending out a flag of truce, that his remains left in the inside of the breach might be carried away.

If we had been successful in obtaining pos-

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session of the Palace, it might have been difficult and tedious to dispossess the Arabs of other parts of the city, for we must have trusted to the effects of bombardment; had the service been provided with efficient Miners, a speedier termination might have been anticipated, for brave as the Arabs are, the destruction of a few of their strong holds by mines, would doubtless have convinced them of the inutility of further resistance. The defence they made would have done credit to European troops, and, but in one instance, do they appear to have neglected taking every advantage which the nature of their position afforded them; they might have retarded our occupation of the East bund of the Tank, which they allowed us to intrench, almost without opposition.

These reflections on the conduct of the siege of Nagpoor, cannot be closed better than by the following extract from a letter from Brigadier-General Doveton, to the Adjutant-General of the army.

Extract from Brigadier-General Doveton's official letter.

"I avail myself of this opportunity also of "bringing to his Excellency the Commander-"in-Chief's favourable notice, the exemplary "conduct and exertions of the corps of Sappers "and Miners, and of the detachment of Foot "Artillery, during the several operations "against the city of Nagpoor, subsequent to "the action of the 16th of December.

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"Had it not been for the uncommon exer-"tions of Lieutenants Davies and Nattes of the "Engineers, and of the men of the former of "these corps, we should never have been able "to carry on our approaches in the rapid man-"ner they were. Their consequent fatigue and "exertions were therefore proportionably great, "and prove to my entire conviction, that this "particular arm only requires an adequate in-"crease to render the most essential service to "the public interest."

The Arabs, agreeably to treaty, evacuated the city early in the month of January, and were accompanied by a British officer* to the Eastern frontier of Khandesh, which province, though nominally divided under the rule of the different Mahratta Powers, was in reality, almost entirely in the possession of these bold and enterprising adventurers. They were followed by the Second Division, which broke up from Nagpoor on the 22d of January, and proceeded by slow marches to the Westward, through the valley of Berar, by the route of Ellichipoor. In their progress, the two hill Fortresses of Guyalghur and Nanalla, situated on the summit of the lofty mountains which form the Northern boundary of that valley, and

* Lieutenant Sheriff. The Arabs on parting with him, in a manner equally honorable to both parties, forced on his acceptance a present, in testimony of their regard and esteem.

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belonging to the Rajah of Nagpoor, were summoned and surrendered. Both of these places are formidable from their situation, and the former was always considered impregnable by the Natives, till it was taken by storm by the English Army under Colonel Wellesley, in the Mahratta war of 1802; and this doubtless was the cause of the ready obedience which was paid to the Rajah's order for their surrender, of which Brigadier-General Doveton was the bearer. After occupying these places, and some others on the plain, which belonged to the Rajah, and which at first shewed symptoms of resistance, the Division entered Khandesh, and reached Ootran, a place in that province, in the middle of February, where they remained to await the approach of the first Division, with which a junction was to be formed.

Victory of Mahidpoor.

The first and third Divisions, it is almost unnecessary to relate, had crossed the Nerbuddah, and entered Malwa, the latter in the middle of November, and the former in the beginning of December, 1817, and shortly afterwards the combined Divisions encountered and defeated the Army of Mulhar Row Holkar at Mahidpoor. This decisive and glorious victory, which rendered unnecessary any further operations in this part of India, except to pursue the flying and broken bodies of Pin-

darries, was quickly followed by the Treaty of Mundissoor, negociated by Sir John Malcolm, between the British Government and Mulhar Row Holkar, by which that Prince's territories were greatly reduced, and the British supremacy acknowledged and secured. By one of the Articles in that Treaty, all Holkar's possessions in Khandesh, were ceded to the English, and orders for the surrender of the different places were delivered to Lieutenant-General Sir Thomas Hislop, the Commander-in-Chief; who, shortly after it was ratified, returned with the first Division to the Deckan. The Division crossed the Taptee on the 20th of February, and a copy of the order for its surrender, was sent to the Killedar of Talneir, one of the places in question, situated on the banks of this River. The order, however, was disregarded, and the Garrison having fired on the advanced guard, which came within reach of the guns of the Fort, all hopes, of passing it by without notice, were at an end; and as the Division was without a battering train, the Commander-in-Chief determined to attempt its reduction by a coup-de-main.

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And Treaty of Mundissoor.

The Killedar of Talneir refuses to obey Holkar's order for surrendering it to Sir Thomas Hislop.

ATTACK OF THE FORT OF TALNEIR.

The Engineers, on reconnoitring the Fort, found it situated on a knoll, but with the ground around it so intersected by ravines, through

Description of the Fort of Talneir.

PLATE III.

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which roads generally run, that cannon might be brought under cover to within 100 yards of the place. The Taptee defends one side, and on the other three, there is a hollow way about 150 yards wide. The inclosure is a wall of masonry, about 60 feet high, flanked by square and round towers. The entrance is on the East side, of difficult access, having several traverses of mud and masonry, and five gates. The huts of the town approach to within musket shot of the walls.

About 10 o'clock A. M. an emplacement was formed, and two 6-pounders, and two 5½-inch howitzers, protected by the piquets of the Division, were brought up to (*a*), to play on the defence near the gateway.

About 2 P. M. two 6-pounders were placed at (*b*), at 120 yards distance, to ruin the thin parapets of the traverses of the gateway, and render them untenable; shortly after, a howitzer was removed, and placed at (*c*), and a few rockets were thrown into the place. The storming party, consisting of three guns of the Horse Artillery, to blow open the gates; the flank companies of the Royal Scots and Madras European Regiment, and the detachment of the Rifle Corps, was formed at the same time, at (*a*); the firing had considerable effect on the mud parapets, and between 4 and 5 P. M. the enemy having called for quarter, the storming party advanced,

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and met the Killedar in the gateway, coming out to negociate terms; he was sent on to Head Quarters, and the party advanced. Two gates were burst open without any resistance being offered, two were altogether unclosed, and at the last, some officers and grenadiers entered by the wicket, and the latter attempting to disarm the Arabs by force, who are remarkably punctilious in the preservation of their arms, an affray took place, in which all our party who entered, were killed or wounded. At length, the remainder of the storming party succeeded in forcing their way through the wicket, and every man in the Fort was put to the sword.

ENGINEER DEPARTMENT.

Lieut. Anderson, Madras Engineers, *severely wounded.*
„ T. H. Elliott, Royal Engineers, *doing duty.*
„ Purton, Madras Engineers.

REFLECTIONS.

This operation offers little subject for professional reflections. The Fort of Talneir is of trifling strength, owing to the brokenness of the ground around it, which affords cover in every direction, and on the side of the river, up to the very walls of the Fort; and with this defect, it could make little defence against a regular attack with sufficient means. Its principal strength lies in the construction of the interior

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of the Fort, which (as is often the case with places similarly situated), is a solid mass of earth, much higher than the surrounding country; upon which, the rampart and parapet, perhaps 11 feet high, are raised, and these are the only parts not solid; so that in battering the exterior walls, which are 60 feet high, the shot would bury themselves in an enormous mound of earth. But this would have been no obstacle against Mining, and this method, which would have been as expeditious as the one pursued, might have been tried on the present occasion, but, there being neither a Miner, nor a mining tool in the Division, nor even a scaling ladder, there was no resource but to attempt an entrance by the gateways. Like most of the Forts in this part of India, the gateway was the strongest part, and (as will be seen by reference to the plan of it) considerable pains had been bestowed, and apparently with great success, on preserving a proper flanking defence on the different passages; and if the gateway had been defended with the usual obstinacy and resolution of the Arabs, it seems doubtful how far a passage could have been forced through the four inner ones, even after the outer gate had been battered down.

See PLATE IV.

Remarks on the unfortunate affray, that took place at Talneir.

Fortunately, no resistance was offered; and it is a strong presumption against the treachery imputed to the Arabs, that the advantages they

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could hope to gain from it, were not to be compared to what they might expect, by an open resistance from the ramparts, which command the passages between the outer and inner gates. By the former, they might destroy the first few who entered the wicket. By the latter, supposing the gates to have been shut, the whole of the principal Staff of the Army, who were pent up with the storming party in this narrow space, must have remained exposed to the unerring aim of the Arab matchlocks, while a gun was dragged up this steep ascent, to blow open the successive gateways. On the justice of the sentence passed on the Killedar and his Arab Commander, and on our right to inflict it, were I qualified to pass an opinion, I should feel little disposed to do so; but I may be permitted to deplore, in common with all friends of humanity, that some Ambassador more polished than a British Grenadier, and one acquainted with the language and customs of the Arabs, had not preceded the storming party, to explain to them the terms on which they were to be admitted to quarter, and to prevent the possibility of such an affray as that which took place, and the loss of lives that necessarily resulted from it.

Farther operations of the first and third Divisions.

After the reduction of Talneir, a junction was effected between the first and third Divisions, and they proceeded through Khandesh

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into the valley of the Godavery, which they entered by the pass of Chandore. The Fortress which guards this pass, together with that of Gaulna, both belonging to Holkar, surrendered to the British Army without resistance. After an ineffectual attempt to come up with the Peishwah, the Head Quarters proceeded to Aurungabad, when His Excellency Sir Thomas Hislop resigned the chief command, and the Army of the Deckan was broken up.

Army of the Deckan broken up.

The second Division reverted to its old designation of the Hyderabad Subsidiary Force, and as such, the main part of it was employed in the pursuit of the Peishwah, while a detachment, amounting to about 900 firelocks, with the battering train, was ordered to undertake the reduction of that Prince's Fortresses, and their operations will form the subject of a subsequent Chapter.

Preparations for reducing the Peishwah's Fortresses.

CHAPTER III.

SIEGE OPERATIONS OF THE RESERVE DIVISION.
SINGHUR.—BELGAUM.—SHOLAPOOR.

THE hostilities commenced by the Peishwah in November, 1817, had given ample employment since that time to the fourth and reserve Divisions, composed of Madras and Bombay troops; and they had given him, on several

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occasions, but particularly at the battle of Kirkee, and the defence of Corygaum, a lesson, which probably convinced him, that his best chance of success rather lay in harrassing our troops by the rapidity of his movements, than by attacking even our smallest bodies on the plain. Shortly after the gallant defenders of Corygaum had effected their retreat to Serroor, the combined Divisions had proceeded against Sattarah, which surrendered without opposition; and immediately afterwards the fourth Division commenced anew their pursuit of the Peishwah, while the Reserve was ordered to undertake the reduction of such of his Fortresses, as lay in their line of operation, for which service they were particularly organized.

The strength of the Reserve was as follows:

Artillery, Madras and Bombay	-	194
Madras Native Infantry	- - -	1775
Bombay Native Infantry	- - -	1776
Pioneers, Madras and Bombay	-	350
Forming a Total of	-	4095

ATTACK OF SINGHUR.

The first object of their attack was Singhur, which place they reached on the 20th February, 1818, and immediately invested it; the main body taking up its ground in the valley to the Southward of the Fort, with the exception of the 2d battalion of the 9th Regiment of Bombay

CHAP. III. 1818. Native Infantry, and a party of Horse, who were sent to invest the Northern side.

Description of the Fort of Singhur. PLATE V.

The Fort of Singhur is situated about fifteen miles South of Poonah, on the summit of a mountain, which forms the Western extremity of one of the ranges of hills, running between Poonah and the Neerah river. It is of irregular form, being about 1000 yards in its greatest length, and 800 in extreme width. It is of great strength, particularly on the North front, nature having rendered it nearly inaccessible in almost every point. The Poonah gate is the only road of approach on this side, and consists of three separate inclosures, at some distance asunder. The Fort contains abundance of excellent water; and although there are no regular bombproofs, the ledges of the rocks afford shelter for a small body of men. The garrison consisted of 1200 men.

RECONNOISSANCE.

Immediately on the investment, the place was reconnoitred, and it was determined to establish a mortar battery on the Eastern hill, about 800 yards distant from the Fort.

February 22d and 23d.

WORKING PARTY.—360 Pioneers, 300 Dooly bearers.

The working party was employed in collecting materials for gabions and fascines. One mortar and one howitzer were placed in position on the Eastern hill, as also four mortars and

three howitzers, under cover of a hill S. E. of the Fort, marked (B) in the plan. On the morning of the 23d, a reconnoissance was made on the Western side of the Fort, and possession having been taken of an eminence in that quarter, after a slight resistance on the part of the enemy; it was determined to maintain this position, and to erect a two-gun battery. The ground between the Western and Eastern posts were also reconnoitred, and an eligible point discovered for a breaching battery. CHAP. III. 1818.

February 23d, at Night.

WORKING PARTY.—100 Europeans, 200 Sepoys, 260 Pioneers.

Men were employed in making a road from the park to the Western post. The Eastern post was enlarged, to contain 2 six-pounders, and the guns were placed in battery.

February 24th.

WORKING PARTY.—100 Europeans, 200 Sepoys, 100 Pioneers.

Men were employed during the day in making a road to the center hill post.

February 24th, at Night.

WORKING PARTY.—100 Europeans, 100 Sepoys, 160 Pioneers.

The road to the Western post was finished. A two-gun battery (E) was completed, and armed with twelve-pounders, which opened their fire at day-break.

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February 25th.

The carriages of the twelve-pounders broke down after a few rounds, but were replaced in the course of the day.

The 25th, at Night.

WORKING PARTY.—100 Europeans, 200 Sepoys, 260 Pioneers.

The battery at the Western post was repaired, and enlarged for 2 six-pounders, which opened their fire next morning. The breaching battery (c), intended for 3 eighteen-pounders, was commenced, and two-thirds of it prepared for two guns. The European detail, with 60 of the Natives, by some mistake omitted to attend.

February 26th.

WORKING PARTY.— ... Europeans, 100 Sepoys, ... Pioneers.

The road to the center post breaching battery was completed.

The 26th, at Night.

WORKING PARTY.—100 Europeans, 200 Sepoys, 260 Pioneers.

The breaching battery for two of the eighteen-pounders was finished, and armed, and a revetment of gabions for the third was placed and filled; but owing to the rockiness of the soil, nothing further could be added to the thickness of the parapet.

February 27th.

A further reconnoissance was made, and a

spot to the South East (marked D in the plan) was fixed upon, for two additional eighteen-pounders, to assist in making the breach. CHAP. III. 1818.

The 27th, at Night.

WORKING PARTY.—100 Europeans, 200 Sepoys, 200 Pioneers.

The new battery (D), for 2 eighteen-pounders, was nearly constructed.

February 28th.

WORKING PARTY.— ... Europeans, ... Sepoys, 60 Pioneers.

The new battery was completed, and armed with 2 eighteen-pounders, which opened their fire about 10 o'clock next morning. A howitzer was also added. A brisk fire was still kept up by the enemy.

The 28th, at Night.

WORKING PARTY.—100 Europeans, 100 Sepoys, 100 Pioneers.

The center post breaching battery was repaired, and completed for three guns.

March 1st.

About 9 A. M. a white flag was hoisted by the Garrison, and two Deputies were sent to the British camp, for the purpose of negociating. Articles of capitulation were drawn up, with which they returned. During the interval the fire from our batteries had been suspended, but was re-opened from the breaching batteries a little after noon, no reply having been received

CHAP. III. 1818. from the Fort. About 3 P. M. a messenger arrived with a letter, stating that agents, vested with full powers to treat, would be immediately dispatched, and they accordingly arrived between 4 and 5 o'clock; but the Articles could not be arranged, and a second communication with the Fort took place.

During this time a partial fire was kept up by our batteries, excepting the Eastern post.

March 3rd.

The batteries, except the Eastern one, opened as usual about 8 A. M. A third party from the Fort arrived, and the terms were finally arranged.

ENGINEER DEPARTMENT.

Captain J. Nutt, *Bombay Engineer, Commanding.*
Lieutenant Grant, *Madras Engineers.*
,, Macleod, *Ditto.*
,, Athill, *Bombay Engineer.*

ORDNANCE.

4 Iron 18-pounders.
2 ditto 12-pounders.
2 brass 12-pounders.
1 ditto 10-inch Mortar.
4 ditto 8-inch Mortars.
2 ditto 5½-inch Howitzers.

There were expended during the siege, 1417 shells, and 2300 eighteen-pound shot.

REFLECTIONS.

As is generally the case with similar For-

tresses, there remained to the Engineer no choice as to the point to be attacked, and the positions of the batteries, alone required the exercise of professional talents. These appear to have been well selected, and fortunately our fire had the effect of intimidating the Garrison. Had they shown more resolution, they might have detained us much longer, but the defence they made was unworthy of the name.

Operations of Brigadier-General Munro.

While part of the Reserve Division was thus occupied, the remainder of it, commanded by Brigadier-General Munro, was employed in reducing the Southern Mahratta country, which was wholly in the possession of the Peishwah's adherents; and the General's first operations were crowned with very brilliant success. The attack of Badaumee may, in particular, be noticed as a remarkable instance of the effect produced by the bravery and resolution of our troops, in intimidating their enemy, when occupying an impregnable position. After the fall of this place, the Division marched to Belgaum, a Fort situated near the Western Ghauts, and which they reached on the 20th of March.

The strength of the Division for the siege consisted of—

2 Squadrons of Dragoons.
3 Troops of Native Cavalry.
11 Companies of Native Infantry.
4 Companies of Mysore Regular Infantry.
4 Companies of Pioneers.

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The battering train was composed of—

* 2 Iron 18-pounders.
2 Iron 12-pounders.
2 Brass 12-pounders.
2 Heavy Mortars.

ATTACK OF BELGAUM.

Description of the Fort of Belgaum.
PLATE VI.

On arriving before the place, the Pettah was occupied, and the Fort reconnoitred. Its shape is an irregular oval, in circumference about 2600 yards; its greatest length being about 900 yards, from the Flag-staff Bastion to the Southward. It is surrounded by a deep wet ditch, and a regular sloping glacis, with a clear esplanade around it of 600 yards. The Engineer, by whom the Fort was built, has, apparently, trusted entirely to the ditch for the defence of the East and West fronts, for the greater part of them has been left without any round towers, which are only placed on the North and South fronts; in the former of which is the gateway. The other defences of the Fort consist of two or three cavaliers, prepared for batteries; one of which is at the North-West angle behind the Flag-staff Bastion, and has apparently been placed there for the further protection of the

* In one place Colonel Blacker mentions two 18-pounders as the complement, but in his subsequent remarks he says, "the *three* iron 18-pounders were so run in the vent, &c." I have adopted the former, as this agrees with the number stated to have been in battery.

entrance into the Fort, which is situated near the North-East angle. There are three gateways, which, after the Fort was taken, were found to have been built up, and barricaded. Between the inner and middle gateways, there is a narrow causeway across the ditch, protected by a small outwork, with a tolerably thick rampart, and a dry ditch and glacis in front of it. The Pettah lies opposite to the West front of the Fort, but extends some distance to the Northward, where are the remains of an old wall, which, after covering part of the Pettah on that side, takes a South-Easterly direction, and terminates on the glacis of the Fort, opposite to the Flag-staff Bastion. The garrison consisted of 1600 men. The works were well supplied with ordnance and stores, and the walls, which are very substantially built of granite, and which vary from 35 to 60 feet in height, were in good repair.

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March 20th.

A battery for 3 twelve-pounders was commenced near a mosque, opposite to the North face, about 900 yards distant from the Fort, and in order to create a diversion, a five-and-a-half-inch mortar, and a six-pounder, opened from the Pettah.

March 21st.

The battery (A) opened, and was answered by five guns from the enemy, but notwithstand-

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ing this superiority, the enemy's fire was almost silenced by the next morning.

March 22d, and 23d.

During the night, an enfilading battery (B) was completed, situated in the Pettah, about 600 yards from the Flag-staff Bastion, for the purpose of enfilading the North face and gateway. A gun opened on it from the cavalier behind the Flag-staff Bastion, and the fire of the battery (A), was returned from the curtain on the left of the gate.

March 24th.

An approach was commenced from the North-East, behind the old Pettah wall, about 900 yards distant from the Fort, and was carried 140 yards to the Eastward, in the direction F F.

March 25th.

The approach was continued 120 yards, and the enemy's fire appeared nearly silenced.

March 26th.

The enemy opened from the Flag-staff Battery, which was supposed to have been nearly destroyed by the twelve-pounder battery (A); and they fired also from a gun on the right of the gate. The approach was continued 100 yards over very hard ground.

March 27th.

The mortar was moved from battery B to A. During the night, the trench was continued 100 yards.

March 28th.

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The approach was continued 120 yards, in a South-Westerly direction, clearing the salient angle of the outwork, in front of the gateway. The enemy only fired from two guns.

March 30th.

The approach proceeded 120 yards.

March 31st.

The magazine belonging to battery (A) blew up, and the garrison sallied to take advantage of the confusion, but were met 100 yards from it, by the battery guard and Artillery detail, who drove them back into the Fort.

April 1st.

The twelve-pounder battery (A) was repaired, and an eight-inch mortar opened its fire. The 5½-inch mortar was carried back again to the enfilading battery. The approach was continued 50 yards in advance.

April 2d.

A breaching battery (C) for 2 eighteen-pounders was commenced, and completed, at the distance of 600 yards from the gateway, and 550 from the Flag-staff Bastion.

April 3d.

The battery opened, directing its fire on the left of the gateway, with great effect. It was answered by two guns of the enemy, which caused some annoyance, and a battery (D) was therefore constructed for 2 twelve-pounders, to

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silence them, 150 yards nearer the Fort, than the breaching battery.

April 4th, 5th, and 6th.

The batteries all continued firing without intermission till the 6th, when a battery (E) for 1 twelve-pounder, about 200 yards from the outer work of the gateway, was completed.

April 7th.

The battery (E) opened this day, but the gun burst after a few rounds firing.

The breach of the curtain to the left of the gateway was continued, but the fire of the garrison was by no means got under.

April 8th.

The 1 twelve-pounder battery (E) was lengthened for 2 guns, and was armed with the iron guns from battery A, which was dismantled.

April 9th.

Battery E opened with great effect on the curtain near the gate, which had not been destroyed, and which gave cover to the enemy's ginjals* and small arms. A practicable breach was also made in the outwork, in front of the gateway, which induced the Killedar to open a negociation.

* Long matchlocks, of various calibres, used as wall pieces by the Natives of India, which are commonly fixed like swivels, and carry iron balls not exceeding a pound in weight. In the field, they are sometimes carried on the backs of camels.

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April 10th.

The batteries fired as usual, till the garrison surrendered at discretion, when the British troops took possession of the outer gateway, and on the 12th the garrison marched out.

REFLECTIONS.

The foregoing account of the Siege of Belgaum has been extracted from Colonel Blacker's Memoir, and before commencing the reflections which I am about to offer on it, I must be allowed to join in the full tribute of praise, which that officer has paid to the zeal and perseverance, with which the attack was carried on, and all the obstacles arising from inefficient means surmounted; and if in the spirit of impartial investigation, which in these discussions it has been my endeavour to pursue, some objections should arise to the general details of the works carried on, and to the spot selected for the breach, they will be urged rather to show, what might have been done with a well organized department, than to call in question the abilities of the distinguished and respectable officer* who, in the absence of an Engineer, directed the attack.

The first point to which the attention is directed, on an examination of the Plan, is the

* Lieutenant-Colonel Newall of the Madras Infantry.

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number of batteries, which appear to have been somewhat needlessly accumulated; and some of them, if we may judge by their effect as detailed in the Journal, apparently at too great a distance to have made the desired impression on the works. This remark is particularly applicable to the batteries, marked A and C, which might perhaps have been dispensed with, and the guns in them placed more advantageously at once, in battery at D and E. The position for the battery at B, was most judiciously chosen, but it might have had still more effect in enfilading the North front, if it had been placed a little to the right, in the prolongation of the general line of that front. The direction of the trenches, marked F F F, was probably regulated by some localities, with which the Plan does not make us acquainted; and it is therefore suggested with diffidence, that if a trench had been made from B to E, connecting these two points, instead of following the line F F F, represented in the Plan, 200 yards of trench work would have been saved, and the garrison would have been more effectually confined; or a part of the old Pettah wall, to the Northward, marked in the Plan 7 8, might have been converted into a parallel, and the only trench necessary would then have been from 8 to E, which would have reduced the

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quantity to 400 yards, instead of 750 yards* actually executed.

If it was intended to carry on any sap in advance of E, from whence to assault the breach, the breaching battery was established too soon, as the enemy might, in the time which it would have required to make such a sap, have retrenched or cut off the breach. If it was intended that the storming party should attack from the trenches at E, 200 yards distant, without any place to be occupied in the immediate vicinity of the breach, the result of the storm must have been doubtful. It will appear by reference to the Plan of the gateway and breach (see Plate VII.), that the besiegers would have had no small obstacles to surmount in attempting it; and if the garrison had behaved with resolution, access to the breach, without some further operations, would appear impossible. The spot near the gateway, which was selected for the breach, was, in fact, the best defended point of the Fort; but in this, as in other instances during the war, the be-

* Colonel Blacker's Memoir states 750 yards of trench to have been the quantity executed, but the Plan shows nearly 1000. The distances, stated by Colonel Blacker, of the batteries from the Fort are generally inconsistent with the Plan, which will account for the difference in the distances given by me, from those contained in Colonel Blacker's Memoir.

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siegers were obliged to breach that part of the walls, near which there was a causeway across the ditch, without reference to its comparative weakness or strength, for in the imperfect state of the siege department, it would have been beyond their means to have effected the passage of the ditch at any other point.

It is a great and undeniable proof of judgement, to regulate the project of attack of a Fortress, by the means at hand to carry it into effect, and judged by this rule, the plan pursued on the present occasion was judicious; but with sufficient means for common siege operations, an Engineer Officer, in all probability, would rather have attacked the Fortress of Belgaum on the West side, immediately opposite to the mosque (marked 5), where there is a salient point, without any flanking defence on it whatever; and a similar one is to be found on the East front, but the cover afforded by the Pettah would ensure a preference to the former. One approach, connecting the Pettah with the mosque (5), another of 200 yards from thence (towards 9), and a third of the same length, directed clear of the South-Western salient angle of the Fortress, would have brought the assailants to the foot of the slope of the glacis, from whence the descent into the ditch might have been carried on. When the trenches had advanced thus far, a breaching

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battery might have been constructed on the small rising ground, on which the mosque is situated, and there is no doubt that operations of this kind might, with a well supplied Department, have been brought to a certain termination in less time, than was employed in the present instance, in breaching a point, which, if defended, it was uncertain whether we could gain.

But it would have been madness to have attempted such a course as I have described, under existing circumstances, and it must be allowed, that the Commanding officer, from his experience at Badaumee, had good reason to depend on the valour of the troops, in surmounting the obstacles, which the breach in the projected spot would have presented to them; and the trifling loss we experienced, of only 25 men, during a siege of twenty days open trenches, affords in itself the highest encomium on the manner in which the siege was conducted.

The Reserve Division marches on Sholapoor.

Shortly after the capture of Belgaum, a junction was formed with the remaining part of the Reserve Division, commanded by Brigadier-General Pritzler, which, after the fall of Singhur, had been successfully employed in reducing the Forts, between Sattarah and Poonah. On receiving this reinforcement, the Division immediately marched against the Fortress of Sholapoor, near which a part of the Peishwah's force occupied a position. The force of the Division was as follows.

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Right Brigade	European Flank Battalion . . . . . . Rifle Corps	1060
Center Brigade	4th Madras Native Infantry . . . . . 2d Batt. 9th Madras Native Infantry	1110
Left Brigade	1st Batt. 7th Bombay Native Infantry 2d Batt. 12th Madras Native Infantry	1430
2 Squadrons H. M. 22d Dragoons		180

Artillery—123 Rank and File.

Pioneers—4 Companies.

The Division arrived before Sholapoor on the 9th of May, and took up its ground about two miles and a half from the Fort, on its Western side. The Fort being much covered by trees, its figure was not distinctly observed; but the enemy's Infantry and guns were seen, drawn up with their right upon the glacis, and their line extending to the Southward, along the bank of a Tank, which covered them breast high. The British force amounted to about 4000 men, as detailed above. The enemy (who were commanded by Gunput Row, one of the Peishwah's principal Chiefs) were about 6000 men, with 14 guns, independent of the Garrison, who were estimated at 900 more.

Description of Sholapoor.

Sholapoor is situated in an extensive plain of black soil, intersected here and there by rivulets of brackish water. The ground immediately to the South is gently elevated and undulating, of a hard reddish soil. It is a large commercial town, inclosed by a strong mud wall, with towers of masonry on all sides, excepting to-

wards the South-West, where it is bounded by the Fort, to which it is contiguous, at the distance of about 300 yards. CHAP. III. 1818.

South of the Fort is a large Tank, which washes the ramparts, and part of the wall of the Pettah, and supplies the ditch with water, through a sluice cut in a low wall of masonry, which bounds the ditch at its extremity nearest to the Tank.

ATTACK OF THE PETTAH OF SHOLAPOOR.

May the 9th, and 10th.

A strong reconnoitring party was sent out at 9 A. M. under the command of General Pritzler, round the Northern and Eastern faces of the Pettah, to examine the walls and the gateways; and in the evening, another party was sent round the Fort to the Southward, to reconnoitre the enemy's position, and, as far as possible, the Tank and Pettah on that side.

The reconnoitring party in the morning was threatened by a large body of the enemy, who came round the Western face of the Fort with a few guns; but as they kept pretty close to the walls, and the reconnoitring party had accomplished its purpose, nothing further took place than a slight skirmish between the riflemen, who acted as a covering party to the Engineers, and the enemy's advanced parties of Horse.

It was now determined to assault the Pettah,

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previously to any operations being undertaken against the Fort. A strong column accordingly left camp for that purpose, at 3 o'clock on the morning of the 10th, composed of the whole of the Right and Center Brigades, and the flank companies of the Left Brigade, with 2 brigades of six-pounders, a brigade of howitzers, and the galloper guns of His Majesty's 22d Dragoons, 3 troops of whom accompanied the guns as a Reserve.

Arrangements for storming the Pettah of Sholapoor;

When within 1000 yards of the Pettah wall on the North face, the column was divided into two parties for the assault, as sketched on the Plan (see Plate VIII), leaving a small detachment, to reinforce the Reserve. The two columns moved forward at break of day, under cover of a sharp fire, opened at the same time from the gallopers, to keep down the matchlock firing, which had now commenced from the wall.

Which is taken by escalade;

The scaling ladders were applied, and both columns assaulted about the same instant, with little opposition, driving the defenders from the wall and along the street, and pursuing them to the farthest extremity of the Pettah, the gate of which was immediately occupied, and a musketry fire was soon after opened, from this point, upon the enemy, who were observed to be moving in force, with some of their guns, along the Southern face of the Pettah, appa-

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rently with a view to enter by the Eastern gates, or to attack the Reserve, stationed on that side.

And the Peishwah's troops defeated.

The Pettah being now completely occupied, General Munro resolved to charge the enemy, who were by this time drawn up, and had commenced a fire from their artillery, at the position marked (2) on the Plan. Two companies were called out from the Pettah as a reinforcement, and at the same time a heavy fire was opened from the artillery, while the troops were forming into grand divisions for the charge.

A tumbril at this instant blew up in the enemy's lines, which threw them into some confusion, and the charge taking place soon after, they broke and fled in all directions round the Southern glacis, and took shelter in the covered-way, and about the Western and Northern faces of the Fort; leaving 3 guns in our possession, and throwing others into the ditch, to prevent their falling into our hands.

A smart fire of musketry was kept up between our most advanced parties in the Pettah, and bodies of the enemy, who had sheltered themselves in the covered way, and behind a new wall, thrown up on the glacis, which being pierced for matchlock firing, occasioned numerous casualties among our troops. The enemy, however, must have suffered severely, as he was observed, at 4 o'clock in the after-

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noon, to abandon his position in the covered-way, and take to the plain, in an Easterly direction.

ATTACK OF THE FORT OF SHOLAPOOR.

May the 11th.

The environs being now cleared, no obstacle remained to the commencement of the siege. The Engineers were therefore employed all the morning of the 11th, in reconnoitring the Fort. The troops of the line had been almost all on duty the preceding day, and the remainder being for guard to-day, no working party of Europeans, or Sepoys, could be had. The Pioneers, however, and about 200 Coolies from the Pettah, were employed in collecting materials for the batteries.

RECONNOISSANCE.

The Fort was found to be covered by the glacis on the Northern, Western, and Eastern sides, to within 8 feet of the top of the wall; the scarp of the rampart, and that of the ditch, appeared to be well built, of a bluish granite or clay slate; the walls to be about 25 feet high, with battlements at top, in the Mussulman style. The ditch was of great breadth and depth, and those parts of it, which could be seen, were supplied with water. It was, however, ascertained from information, that part of the Western

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and Southern fronts were dry, and as the retaining wall of the Tank on the last-mentioned side, appeared to be very thin, it was supposed reasonable to conclude, that there was a mound of earth behind to sustain the pressure. This circumstance, together with the difficulty and delay, which would necessarily be incurred in cutting through the glacis by sap, induced the Senior Engineer to recommend that the batteries should be established in the bed of the Tank. The revetment of the rampart could be seen from that spot nearly to the very bottom; and by directing the fire, over the low retaining wall, where the revetment could be seen behind the covered way and glacis, a breach might be very soon effected, at a spot where the ditch was said to be dry; and where, at all events, a passage could be effected by means of the retaining wall, or bund of the Tank.

A battery of 1 mortar, 1 howitzer, and 2 six-pounders, was this day established behind the bund of the Tank, near the South gate of the Pettah, as shown on the Plan. This was done with a view to keep the enemy within the walls, and to afford some cover to the working parties, and advanced posts. The battery opened in the forenoon, and effectually confined the enemy within the walls.

May the 12th.

In the course of the afternoon this battery

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was enlarged for 3 more mortars, which were ordered to be sent out next morning.

WORKING PARTY.—50 Europeans, 100 Sepoys, 150 Pioneers.

The mortar battery opened this morning, with considerable effect. Several houses were burnt in the Fort, and the enemy's fire was somewhat kept under.

May 12th, at Night.

At sun-set the working party was reinforced to the following strength, and as soon as it was dark, the breaching battery of four guns was commenced.

100 Europeans, 100 Sepoys, 180 Pioneers.

May 13th.

This morning, at day-break, the breaching battery, and a small branch of approach to it, were nearly completed; but as the distance from the Fort was only 400 yards, nothing further was done to it during the day.

The mortar battery played upon the Fort to-day, with much effect. The practice was admirable; and the enemy's fire was silenced in several of the towers, where it had been most troublesome.

An enfilading battery, for 2 twelve-pounders and 2 six-pounders, was marked out early this morning, near the mortar battery, and the work commenced about 7 o'clock.

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WORKING PARTY.—30 Europeans, 50 Sepoys, 60 Pioneers.

The enemy kept up a constant fire in this direction, and upon the breaching battery. Not a single workman, however, was wounded. At sun-set the battery was about half finished.

A company of Riflemen were this day posted at the Pagoda in the Tank, very close to the wall, to cover the working party in the breaching battery; and to prevent the enemy from opening the sluice, which a man was discovered attempting to do.

In the afternoon, the Garrison was actively employed in forming retrenchments and traverses upon the towers, and curtain, opposite to our batteries.

13*th, at Night.*

At sun-set, the working party was assembled for completing the batteries, as below.

80 Europeans, 100 Sepoys, 200 Pioneers.

This evening, the Senior Engineer made a close reconnoissance of the rampart and ditch, near the intended breach; the ditch was seen to be dry, and the wall of a smooth and brittle species of granite. Having soon discovered him, the enemy directed musketry and grape towards the spot where the reconnoissance was made, and prevented any further observations in that quarter. About 11 o'clock at night, the breaching battery was completed, platforms laid, and

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the guns brought up, for the purpose of being run in. The enfilading battery was finished about 4 in the morning, and both of them armed and equipped before daylight.

May the 14th and 15th.

At sun-rise, both batteries opened upon the Fort, the breaching battery firing occasionally in salvos, and bringing down large fragments of the wall. The breach was nearly practicable at noon, but the Garrison sent out a Vakeel to treat for a surrender. The terms proposed were agreed to, and on the following day about 8 o'clock the place was in our possession.

ENGINEER DEPARTMENT.

Lieutenant A. Grant, *Madras Engineer, Commanding.*
„ Ainsworth, H.M. 34th Regt. *Actg. Engineer:*
„ Wahab, Rifle Corps, do. *slightly wounded.*

ORDNANCE.

2 Iron eighteen-pounders.
3 Iron twelve-pounders.
3 Brass twelve-pounders.
8 Brass six-pounders.
3 Eight-inch Mortars.
1 Five-and-a-half-inch Mortar.
3 Ditto Howitzers.

The amount of casualties in the assault of the Pettah, and during the siege, was 97, of all ranks, killed and wounded; among the latter, 4 officers.

About 40 guns, swivels, and ginjals, were found on the ramparts.

The Force having halted one day after the fall of the place, marched in the direction of Nipaunee, on the morning of the 17th.

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REFLECTIONS.

The Commanding Engineer's reasons for attacking Sholapoor on the South front have been mentioned in the Journal; and the surrender of the Fortress, before the breach was practicable, affords a reasonable presumption that the Garrison thought the part attacked indefensible; but although this fact alone may appear conclusive of the propriety of selecting it for the attack, it cannot be denied, that the besiegers would have had many obstacles to surmount, if the Garrison had determined to wait an assault. The breaching battery, which was our most advanced post, was placed in the bed of the Tank, and the troops, in marching from thence to attack the breach, must have made a considerable detour of some hundred yards, and would have been exposed to a heavy fire, till they reached the counterscarp. It may, perhaps, have been intended, if the Garrison had continued to hold out, to push on approaches across the intermediate space, but the besieged, in all probability, would then have been able to retrench, or cut off the breach, before these approaches could have been completed. The Journal does not state in what way the

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ditch was to be crossed, if the enemy had determined to defend the breach. The retaining wall, which at that point divides the Tank from the ditch, is represented to have been very thin, and as it was commanded by the whole of the South front, a passage by it along the top, even if sufficiently broad, would have been difficult and hazardous. As the plan does not shew the depth of either scarp or counterscarp, it is of course impossible to pronounce on the feasibility of a passage across the ditch in any other way.

With the means possessed by the besieging force, the point of attack was undoubtedly well chosen, and that where success was most likely to be obtained; for the ditch there was dry, and the necessary time could not probably have been spared to make a passage across a wet one, even if the means had been sufficient for the operation, and if the besiegers had accomplished a lodgement on the glacis; but the weakest point of the Fort, and which with means more respectable, the Engineer would perhaps have chosen in preference for his attack, appears to be the North-West angle, where (if the Plan, which is on a very small scale, is correct) the wall of the Pettah, which is indefensible, and which, in this instance, was in our possession, gives a ready-made approach to the edge of the counterscarp; and where a descent into,

and passage across the ditch, and a breaching battery, would have been the only operations necessary. CHAP. III. 1818.

The former might have been commenced from behind the Pettah wall, where it terminates on the counterscarp, opposite the North-West angle, and the latter might have been placed some distance in rear. It might, perhaps, have been necessary to destroy a part of the glacis, which is described as covering all but eight feet of the rampart of the body of the place, by mines, to enable the guns of the breaching battery to bear sufficiently low; but no parallel, or trenches, would have been required, as the Pettah wall would have afforded sufficient cover for the troops; and, as the soil is said to have been favorable, a few days, with sufficient means, would have brought these operations to a termination.

CHAPTER IV.

SIEGE OPERATIONS OF LIEUT.-COLONEL M'DOWALL'S DETACHMENT, AND OF LIEUT.-COLONEL ADAMS'S DIVISION.—RAJDEIR—TRIMBUCK—MALLIGAUM—CHANDA.

IT has been already stated, that after the Army of the Deckan was broken up in March, 1818, the Hyderabad Subsidiary Force, which had formed the second Division, was employed

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in the pursuit of the Peishwah, who had moved to the Eastward towards Nagpoor; while a detachment from it was formed to reduce that Prince's Fortresses in Khandesh. It was commanded by Lieutenant-Colonel M'Dowall, and was composed as follows:

2 Companies of His Majesty's Royals.
3 Companies of the Madras European Regiment.
The 1st Batt. 2d Regiment Madras N. Infantry.
4 Companies of the 2d Batt. 13th Regt. N. Infantry.

This small force, amounting to about 1000 firelocks, was supplied with the battering train of the first, second, and third Divisions of the late Army of the Deckan. The Sappers and Miners, amounting to 80 men, and five companies of Pioneers, were also attached to it, for the furtherance of the particular service about to be undertaken.

Lieut. Colonel M'Dowall's Detachment arrives before Unkye Tunkye.

The detachment marched from the neighbourhood of Aurungabad on the 30th of March, and arrived before Unkye Tunkye, the first in the line of Fortresses, which it was intended to reduce, on the 3d of April. These Fortresses are situated in the range of mountains, which form the Southern boundary of Khandesh, and which divide that Province from the Gungthera, (a district so called, from lying between the Gunga or Godavery River and these hills); and as the general features are the same in all, it may not be considered amiss, before enter-

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1818.

ing on the particulars of the operations carried on, to attempt a description of these extraordinary Works of Nature.

General description of the Hill Forts in the South of Khandesh.

The reader must imagine a series of hills, rising very abruptly from 600 to 1100 feet above the plain, and only connected with each other, and with the range of which they form part, by very low and narrow necks of land; and he must further imagine occasional bluff rocks, perfectly perpendicular, and varying in height from 80 to 100 feet, to rise from the summit of these hills. The range is evidently primitive, and the rocks which rise from them in this manner, basaltic, being so beautifully and regularly scarped, as to assume the appearance of having been formed by the chisel: and the number of them scattered throughout this range, which is much greater than could be required for the defence of the country, is the only fact, which makes the supposition of their having been formed by art incredible; for the excavation of the ditches at Dowlatabad, out of the same species of granite rock, is a proof of what difficulties the perseverance of the Natives of India is capable of surmounting.

Those hills, which contain water on their summit, have been fortified by the Natives, in periods of the most remote antiquity, for there is no record of their first occupation; and the space contained within the rocky scarp before

CHAP. IV. 1818. described, which often assumes a very fantastic form, such as only could have been traced by the hand of nature, constitutes the interior of the Fort. There is seldom any work raised on them, or indeed any thing done, farther than to cut flights of steps out of the solid rock, and to construct a number of gateways over them; and great ingenuity has been exerted to render these as intricate as possible. Nothing is necessary, but a determined Garrison to render such positions perfectly impregnable. Fortunately for us, this latter requisite was wanting, and Unkye Tunkye set an example, which was generally followed, of surrendering without opposition, the Killedar being intimidated by the determined language held out to him. Plate IX exhibits a view of this singular Fortress.

Unkye Tunkye surrenders

On the 7th of April, the Detachment marched from Unkye Tunkye by the Chandore pass to Rajdeir, a Fortress situated a few miles to the Northward of Chandore. As the Garrison refused to surrender, on the summons which had been despatched with the reconnoitring party, the force took up its ground for the siege, in the valley, which lies to the South-East of the Fort.

Description of Rajdeir. PLATES X and XI.

The Fortress of Rajdeir, like those I have attempted to describe, is formed by nature, being simply an inaccessible rock, on the summit of a very high and steep hill, with no works

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but such as have been constructed for the defence of the gateway (*a*), which is judiciously placed on the South side, in a re-entering angle of the natural scarp; and the pathway to it, after reaching the Eastern angle, runs immediately under the rock, exposed to stones and other missiles from above. The hill itself, on which the Fort stands, is so steep as to be inaccessible on the North and West sides, and is nearly so on a great part of the South side. On the Eastern side, a level space of small width juts out from the angle of the Fort, to the distance of 330 yards, where the descent to the plain begins, and the extremity of this peninsula (if it may be so called), had been occupied by the garrison, and the extremity of it at (*c*) appeared to be fortified by an advanced work, for the further defence of this, the easiest ascent to the Fort. The side of the hill between this point (the elevation of which is 1100 feet) and the plain below, is broken at intervals into two steps, or flat ledges, the ascent to each of which is extremely steep and difficult. The valley in which the British camp was placed, continues round the South side of the Fort, and a small stream which runs through it, divides Rajdeir from the Fortress of Indrye, a place exactly similar, and considered a dependency of Rajdeir. The lowest of the two ledges I have described, as

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intervening between the plain and the advanced work (*c*), after encircling the East side of the hill of Rajdeir, turns to the Northward, and continues to run along the side of another hill (*e*) opposite to Rajdeir, but not of equal height, which forms the boundary of the valley to the Northward. On the top of this ledge, where the two hills meet, in a sort of hollow way, or chasm, formed by the sides, is a Bheel village (See Plate X).

Their Engineer's report on reconnoitring Rajdeir.

The Engineer, in reporting to the Commanding Officer the result of his reconnoissance, declared his opinion, that, from the great natural strength of this rock, a Garrison of 200 determined men, supplied with the requisite provisions, &c. might bid defiance to the largest and best appointed army; and that its fall must therefore depend on some fortunate occurrence, which might intimidate the Garrison into a surrender "But although this be my opinion," the Engineer continued, "I am far from considering that it should prevent our undertaking its reduction; for if to justify the attack of any particular Fortress, it were considered necessary that we should be able to calculate on success beyond a doubt, such is the inefficiency of our means in this Department in India, that not a siege could be undertaken; it therefore appears to me, that as long as this deficiency exists, we must trust for success in our siege operations to good fortune,

"as we have hitherto done, applying in the "best manner possible, the means in our pos- "session." CHAP. IV. 1818.

Under this view the following plan was proposed.

PROJECT OF ATTACK.

The whole of the heavy guns, mortars, and howitzers to be placed at once in position, at the point F.

Under the protection of the fire of this battery, the point of the hill (*e*) above and overlooking the Bheel village, and the point (*g*) on the uppermost of the two ledges of Rajdeir Hill, to be occupied immediately, and the parties to intrench themselves.

When these positions have been taken possession of, our fire to be concentrated on the advanced work (*c*), and the works of the Fort defending the gateway (*a*), which may make the enemy request terms, but if they continue resolute, exertions to be made to establish a battery on the point of the hill (*e*), and the rest to depend on circumstances.

ATTACK OF RAJDEIR.

April 11th.

At 7 A.M. the detachment took up its ground before the Fort, and the whole of the materials and intrenching tools collected for the siege, were laid out at the Engineer depôt.

CHAP. IV. 1818. In consequence of its being impossible to get the heavy guns mounted, so as to commence operations at once, as proposed, it was deemed desirable to occupy the point of the hill (*e*) without delay, especially as the enemy shewed a disposition to do so themselves. A company of Native Infantry, under an European Officer, accompanied by an Officer of Engineers, with a working party, and the requisite materials, moved from camp in the evening, occupied this point, and by 11 o'clock of the same night, a lodgement was formed there, with the loss of only one man, a Pioneer, wounded.

The ground at (F) was likewise prepared during the night, for receiving 4 heavy guns, 3 mortars, and 4 howitzers.

April 12*th*.

The above ordnance was, at day-light, in position at (F), ready to open, so as to cover the advance of the column to occupy the point (*g*), which it did without opposition. The column was accompanied by materials for the formation of a lodgement, but this the natural cover afforded by the ground, rendered unnecessary.

Being in possession of the point (*g*) an opportunity was afforded of ascertaining the exact strength of the advanced work (*c*). It was found to be by no means strong, and as the greater part of the enemy had withdrawn into

the body of the place, and as it was ascertained to be practicable to convey light ordnance to that point, by taking the carriages to pieces, and carrying them up by hand, it was determined to attack this work, as soon as the necessary preparations were made, and to establish a battery on its reverse, at (*h*), to consist of 2 six-pounders, 2 five-and-a-half-inch howitzers, and 1 five-and-a-half-inch mortar. CHAP. IV. 1818.

The following were the arrangements for carrying the advanced work (*c*), and for forming the battery.

The party on the point (*e*) was augmented to 120 Sepoys; a detachment of Sappers and Miners, with scaling ladders, under an Engineer Officer, was attached to it; and they were directed to occupy the point (*d*), on the opposite side of the hollow way, or chasm, and to remain there, under cover, until the signal for the advance was made.

The party at (*g*) consisted of 170 Europeans and 80 Natives. To it were attached 2 Engineer Officers, and the remainder of the Sappers and Miners, with a working party of 100 Pioneers, and 200 Dooly Bearers, carrying 100 gabions and 3000 sand bags.

While the above arrangements were in progress, an incessant fire from F was kept up on the advanced work (*c*), and when all was ready, the signal was made, and the columns

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of attack, headed by the Sappers and Miners, advanced with the greatest regularity, and, at the same moment, got possession of the advanced work.

The working party immediately commenced a lodgment at (*h*), within 250 yards of the Fort and as soon as it became dusk, the same men were employed, with 100 additional Pioneers, in completing this lodgment, and in converting part of it into the intended battery. 1 six-pounder gun was brought up by hand, by nine o'clock P. M., and the battery would have been ready to open at day-light, but the enemy surrendered at eleven, and thus put a stop to any further proceeding.

ENGINEER DEPARTMENT.

Lieutenant Davies, *Commanding Engineer.*
Ensign Nattes, *Staff.*
„ Purton.
„ Underwood.
„ Lake.

European Sappers and Miners	30
Native Sappers and Miners	50

STORES, &c.

1000 Sand Bags.
180 Gabions.
40 Fascines.

And sufficient intrenching tools for the use of the Sappers and Miners.

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ORDNANCE.

2 Eighteen-pounder Iron Guns.
2 Twelve-pounder ditto.
8 Six-pounders.
2 Eight-inch Mortars.
1 Five-and-a-half-inch Mortar.
2 Eight-inch Howitzers.
2 Five-and-a-half-inch ditto.

AMMUNITION EXPENDED.

Eighteen-pound Shot	90
Twelve-pound ditto	41
Eight-inch Shells	38
Five-and-a-half-inch ditto	2
Gunpowder, *lbs.*	700

The immediate cause of the surrender of the Fortress, was a quarrel which took place in the Garrison, originating in the Brahmin Killedar's refusal to pay to the families of three men who had been killed, the arrears of pay due to them. In revenge for this, the Garrison set fire to his house, and the manner in which the flames spread, alarmed them so much, that they were induced to capitulate. Our bold and resolute advance must also have had its effect in intimidating them, and an inspection of the Fort after its capitulation, gave us ample cause for congratulation on its early surrender. The scarp of the rock is in general 120 feet in height, and the entrance to it from below, is similar to that of the famed Dowlatabad, being flights of steps cut in the inside of the rock, with occa-

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sional openings, through which stones can be poured from above, and the top is closed by an iron grating, intended to receive a fire. Our loss was very trifling, seven men only being wounded.

Indrye and other Forts also surrender to Lieut.-Colonel M'Dowall;

Indrye, Doorass, and several other Forts followed the example of Rajdeir, and Engineer Officers were sent to examine and report on the principal ones, but it is unnecessary, and it would be tedious, to repeat the description which has been already given, and which applies equally to all.

Who marches on Trimbuck.

The Detachment left Rajdeir on the 15th of April, and marched by Chandore and Nassuck upon Trimbuck, a Fort situated on the Western Ghauts, and distant from Nassuck about 26 miles South-West.

The Fort reconnoitred, & the Pettah occupied.

The Detachment marched from Nassuck on the 22d of April, and halted half way between that place and Trimbuck, while the Engineers proceeded to reconnoitre the Fort, and to carry a summons for its surrender. As the reconnoitring party approached the Pettah of Trimbuck, the enemy evacuated it, and opened a fire from the guns on the North side of the Fort, which were numerous and well served; and they afterwards made a sally on the party, but were immediately driven back. A reconnoissance was the same evening effected of the gateway on the South, that is on the contrary side

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of the Fort, and at a considerable distance from the Pettah.

Description of the Fort of Trimbuck.

Plates XII and XIII.

The extent of this Fort, as bounded by the rocky scarp which defends it, is not less than five miles, and the stupendous appearance of the place is much increased by some very high hills, which occupy a great part of its interior area. The scarp, which varies in height from two to four hundred feet of perpendicular rock, surrounds the hill in every part, and leaves only the gateways as assailable points. Trimbuck has two gateways. That on the South side is the principal one, of easiest ascent, and is that by which the Garrison admit their provisions and stores; that on the North side is only a single gate, the passage to which is by narrow steps, cut out of the rock, and only wide enough for one person to ascend at a time. The head of this passage is defended by two towers, connected by a curtain, in which is the gateway. The height of the hill is not so great on the North as on the South side, but it rises more abruptly, and the ascent is steeper.

Besides the gateways, there are a few towers and works on different parts of the hill, but their position appears to have been dictated by caprice, rather than with any view to the greater security of the Fortress. The magazines and almost all the houses of the Garrison are excavations in the rock. At the foot of the scarp,

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and at a short distance from the passage leading to the North gate, is an old village in ruins, the stone walls of which are still sufficient to give cover to a large body of troops. The Pettah of Trimbuck, which is rather extensive, is at the bottom of the hill on the North side; and the river Godavery, issuing from an orifice of the rock within the Fort, flows through the center of the Town.

PROJECT OF ATTACK.

The Commanding Engineer recommended an attack on the North gate, for the following reasons—

First: That although the ascent to it was more difficult, than to the South gate, there was on the other hand but one line of works to destroy; a point of great consequence, as we had only six-pounders with which to effect a breach, it being impossible to carry guns of a heavier calibre up the hill on either side.

Secondly: On account of the advantages offered by the ruined village at the foot of the scarp, in constructing batteries, and giving cover to the troops, and by the Pettah of Trimbuck, at the bottom of the hill.

Thirdly: The road leading to the South side of the Fort was impracticable for guns, nor were the means, possessed by the besieging force, sufficient to overcome this obstacle; in addition to which the enemy had poisoned all the wells on that side.

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The following was the plan of attack. To silence the fire of the enemy's guns, particularly those which bore on the ruined village, and for this purpose, to erect a battery at the bottom of the hill on the Northern side of it (at A), for the heavy ordnance; having effected this, to occupy, and form a lodgment, in the village, at the foot of the North gate (at B), and in it to erect a battery for 4 six-pounders, to batter the gateway; and to carry the guns up to it by hand, as had before been practised at Rajdeir. PLATE XII.

At this short distance, about 100 yards, it was hoped that the towers, and curtain at the gateway, might be demolished, and that the troops might advance to the storm of the breach, under cover of the fire of the batteries, and of musketry, from the post in the village; at all events, that a lodgment, so immediately under the gateway, might have the effect of alarming the Garrison, and inducing them to surrender.

In order to cut off all hopes from the enemy of effecting their escape by the South side, and to distract their attention, 2 six-pounders, and a howitzer, were to be detached, and established as high up the hill, and as near to the South gate, as the nature of the ground would allow.

ATTACK OF TRIMBUCK.

April 23d.

At eight, A. M. the detachment took up its

CHAP. IV. 1818. ground before the Fort, and the whole of the intrenching tools and materials, collected for the siege, were immediately carried to the spot chosen for the Engineer depôt, in the Pettah.

At four P. M. a detachment of 50 Europeans, 50 Sebendies,* and 150 Horse, with 2 six-pounders, marched from camp to take up a position opposite to the South gateway. They were accompanied by a working party, under an Officer of Engineers, consisting of a small detail of Sappers and Miners, 30 Pioneers, and 50 Dooly bearers, provided with 40 gabions, and 2000 sand bags. A battery for the 2 six-pounders, and a place of arms for the troops, were constructed during the night, within 500 yards of the gateway, and one of the guns was carried up, and placed in battery by day-light.

A working party for the operations on the North side, was ordered to parade at sun-set, at the Engineer depôt, of the following strength: half the corps of Sappers and Miners, 50 Europeans, 80 Pioneers, 100 Dooly bearers, and about 100 Lascars, &c. As soon as it was dusk, the battery and place of arms (A) were laid out, and when it became dark, the working party advanced, and commenced operations. PLATE XII. The ground, on which this work was formed, unfortunately proved to be a bed of rock, a

* Irregular or Provincial troops.

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few inches below the surface, which gave rise to great additional labour; for instead of forming a sunken battery as was intended, we were obliged to construct an elevated one: but the greatest inconvenience, arising from this circumstance, was the impossibility of lowering the trails of the guns, which rendered it necessary to form an inclined plane for the wheels of the guns to rest on, in order to give them sufficient elevation, to bear on the upper gateway.

At twelve P. M. the relief for the working party arrived in the trenches, *viz.* the remaining half of the Sappers and Miners, 50 Sepoys, 400 Pioneers, and 200 Dooly bearers; but as it was necessary to carry the earth for the battery from a distance, owing to the rocky nature of the ground, which of course delayed its completion considerably, it was deemed advisable not to relieve the old working party, but to keep both at work; and we were thus enabled, by great labour, to complete the works a little before daylight, and to get 4 heavy guns, 2 eight-inch mortars, and 2 eight-inch howitzers into battery.

The enemy, during the night, fired occasionally on the working party, from their different guns, but no casualties occurred.

April 24th.

The battery opened at daylight, and with great effect, so that in three hours the enemy's

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guns were all silenced; and it was found on reconnoitring it, that they had evacuated the ruined village. This induced the Commanding Officer to attempt a lodgment there at mid-day, instead of waiting till night, as had been originally intended; and the working and covering parties for this service, were ordered to parade at 12 A. M. in rear of the work (A). The working party consisted of the Sappers and Miners, 80 Pioneers, and 100 Dooly bearers, under two Engineer Officers, and they were provided with 100 gabions and 2000 sand bags.

PLATE XII.

From some misconception of orders, however, the covering party consisting of His Majesty's Royals, and the 1st Battalion of the 13th Regiment of Madras Native Infantry, advanced three quarters of an hour before the time ordered, and before the working party were ready; and instead of remaining quiet under the cover, which the walls and houses of the village afforded, they attempted to force the gateway, and the bluff rock, 200 feet in perpendicular height.*

* The Europeans, who (in obedience to the orders of the Officer commanding the party) so fearlessly made this impracticable attempt, were the same men who had failed at Nagpoor, and the blind courage they evinced, shows that they did not, on this occasion, much consider that "no advantages would be gained by going forward;" the reason assigned by Colonel Blacker, as the cause of their hesitation on the breach at Nagpoor.

The enemy immediately opened a very heavy fire, of ginjals, rockets, and matchlocks, on the village, and rolled down large stones on the assailants. Consequently, when the working party arrived, they in vain attempted to establish themselves; and as our battery discontinued firing at this time, owing to the Artillery men being completely worn out, by twelve hours' incessant labour, without a relief; the working party were obliged to retire with some loss behind the walls of the village till night, when a battery for 4 six-pounders was completed.

April 24th.

This advanced position, together with that on the South side, had the desired effect, for at six A. M. the Killedar expressed a wish to treat, and the Garrison were allowed to march out with their arms and private property.

ENGINEER DEPARTMENT.

Lieutenant Davies, *Commanding Engineer.*
Ensign Nattes *(Staff).*
„ Purton.
„ Underwood.
„ Lake *(severely wounded).*

European Sappers and Miners	27
Native ditto	47

STORES, &c.

Sand Bags ...	8000
Gabions	260
Fascines	50

Intrenching tools sufficient for the use of the Sappers and Miners.

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ORDNANCE.

2 Eighteen-pounder Iron Guns.
2 Twelve-pounder ditto.
8 Six-pounders.
2 Eight-inch Mortars.
2 Five-and-a-half-inch ditto.
2 Eight-inch Howitzers.
2 Five-and-a-half-inch ditto.

AMMUNITION EXPENDED.

Eighteen-pound Shot	254
Twelve-pound ditto	66
Eight-inch Shells	111
Five-and-a-half-inch Shells .	40
Gunpowder, *lbs.*	2200

REFLECTIONS.

The reputation of Trimbuck for strength, was deservedly greater than that of any of the Forts, with which this country abounds, and being considered as a place of peculiar sanctity, from containing within its walls the source of the Godavery, one of the most sacred of Hindoo Rivers, an obstinate resistance was anticipated. The Garrison, indeed, did not seem deficient in judgment, for the practice of their ordnance (of which they had seventeen pieces mounted), was very good, and they moved them about to different points, in a manner which showed that they knew where they could be most effective. During the course of the operations, they constructed a battery for two guns on the South side of the Fort, which enfiladed

our entrenchment on that side, and rendered it necessary to give it a shoulder, and to open an embrasure for a gun to keep them in check. The buildings were so few, and the place so extensive, that our bombardment had but little effect.

The plan of attack was the best, or rather the only one, that could be adopted, but had the Garrison resisted with firmness, success could scarcely have been anticipated. The old village itself, if occupied by the enemy, could not have been carried without a great sacrifice of lives; after the capture of which, even if the light ordnance employed had succeeded in destroying the tower and gateway, still greater obstacles remained to be overcome. For the storming party must have advanced by a flight of steps, so very steep, that in many places it requires a man to climb them by the assistance of both his hands, and at the same time so narrow, that there is not room for two persons abreast. Under such circumstances, stones rolled from above would have sufficed to baffle the assailants.

It is difficult to account for the want of resolution displayed, in the defence of this impregnable Fortress. The reasons for it must be sought, in the effect produced on the minds of the Garrison, by our rapid advances to the foot of the scarp, and by seeing their escape pre-

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vented by the works on the South side. The absence of their Prince, at this time a fugitive surrounded by British Armies, and the extreme improbability of his ever returning to his own dominions, must also have produced an unfavourable effect on the spirit of the Garrison, and prevented them from attempting a more protracted resistance. Seventeen other Forts fell on the surrender of Trimbuck, and the whole of this country, perhaps the strongest in the world, came into our hands in a few weeks, almost without a struggle.

In contemplating such pusillanimous conduct, even on the part of our enemies, it is difficult to repress a feeling somewhat resembling disappointment. The idea unavoidably arises, that nature intended these hills for other men, and other deeds. She seems to have marked them out as a theatre, on which the battles of freedom and independence might be successfully fought: for amongst them the undisciplined and half-armed Native would be on a par with the most skilful and experienced veteran; and even in the stones which cover them, nature has furnished abundant arms for their defence. If these ideas, and the stern character of the scenery, which gave rise to them, seem little consonant with the habits and dispositions of the Natives, it should be remembered, that even in India the assertors of liberty have been

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found; and that it was from these very hills, that Sevajee first endeavoured to break the iron bonds, in which his countrymen were held by Aurungzebe. It was amongst these hills, that his enterprises were planned, and from them, that his "living cloud of war was poured forth." It was here, that he laid the foundation of that Power, which in after times retaliated, upon the fallen Emperor of Delhi, the injuries, which the intolerant spirit of that Prince's ancestors had inflicted on the Hindoo world; and here, the last Mahratta Sovereign might have made an effectual struggle for independence; but the spirit was wanting, with which the great founder of the tribe had armed his people for conquest. Thirty Fortresses, each of which, with a Sevajee as a master, would have defied the whole Anglo-Indian Army, fell unresistingly in a few weeks; and this vast Mahratta Empire, which had overshadowed the East, and before which the Star of the Mogul had become pale, was destined to furnish in its turn, another great example of the vicissitudes of fortune; and of the instability of the mightiest thrones, the foundations of which are not laid in the affections of the people.

Trimbuckjee attempts to retake Trimbuck by surprise.

Here it may not be amiss to notice an attempt made by the notorious Trimbuckjee, about two months afterwards, to retake Trimbuck by surprise. A Garrison, composed of a few

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men of the 13th Madras Native Infantry, commanded by a Subadar, had been left in the Fortress, and the sentries at the North gate, in the dusk of the morning in question, were requested to admit some people, who professed themselves to be pilgrims, wishing to pay their devotions at the Pagoda, which is built over the source of the Godavery. They were admitted without suspicion, but before the whole party had entered, they attacked one of the sentries, who contrived to close the gates, but at the expense of his life. The Garrison was immediately alarmed, and succeeded in overpowering the few who had gained admittance, while the remainder of the party, who were in the narrow flight of steps, leading to the North gate, suffered severely from the stones which were thrown upon them from above.

Proceedings after the capture of Trimbuck.

After the fall of Trimbuck, the season seemed too far advanced to admit a hope of being able to continue operations, and Lieut.-Colonel M'Dowall prepared to take up a position for the monsoon, in the neighbourhood of Chandore, while the Engineer Department moved to Nassuck, preparatory to proceeding to Bombay, where it was intended to try, during the approaching rains, some experiments in pontooning, suggested by Lieutenant Davies, the Commanding Engineer; but the political Authorities deemed it of importance to obtain a

footing in Khandesh (the greater part of which province was in possession of the Arabs), before the monsoon set in; and the Detachment accordingly marched for Malligaum, before which place they arrived on the 16th of May, the Engineer Department having rejoined them, by forced marches, on the preceding day. CHAP. IV. 1818.

Strength of Lieut.-Colonel M'Dowall's Detachment, on arriving before Malligaum.

The strength of the Detachment at this period, including the sick and those wounded at Trimbuck, probably amounting to 50, was as follows:

His Majesty's Royal Scots	100	Rank & File.
Madras European Regiment	90	
1st Batt. 2d Regt. Native Infantry .	530	
2d Batt. 13th Regt. Native Infantry	263	
Forming a Total of	983	

But the effective strength of the Detachment must have been below 950 firelocks. There were besides 270 Pioneers, and a small detail of European Artillery, barely sufficient to furnish the necessary reliefs for the batteries.

The Fortress of Malligaum described.

The Fortress of Malligaum is situated on the left bank of the River Moossum, a little above its junction with the Ghirna. The river, which at the commencement of the siege, was every where fordable, runs under the West, and round a great part of the North and South sides. The Fort consists of three distinct lines of works, with a ditch in front of the middle line. The body of the Place is an exact square of 120 yards, flanked by a round

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tower at each angle, and one in the centre of each side. The middle line, which is a kind of faussebray, is also quadrangular, running parallel to, and at a short distance from, the inner work; but assuming an oblong shape, from the distance between them being greater on the East, than on the other sides. The outer line is of an irregular form, running parallel to the body of the Place on the West side only; and extending to some distance on the other sides, where it embraces a large space of ground. It is strengthened throughout its whole extent, by round towers, at irregular intervals. Towards the East, and also on part of the Northern side of the Fortress, there is an additional line of works, formed of mud, but old and much decayed, between the ditch of the faussebray, and the outer line that has been described. It extends from the South-East angle of the ditch, as far as the works of the gateway on the Northern side, with which it is connected. The interior line and faussebray are built with stone, and of excellent masonry; and so is the outer line on the South side, and towards the River, but those parts of it, which face towards the Pettah, are of mud, and somewhat decayed.

The height of the inner wall, measuring to the top of the parapet, is 60 feet: the thickness of the parapet at top is 6 feet, and the breadth of

the terreplein 11 feet, making the total thickness of the rampart at top 17 feet.

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The breadth of the space between the body of the Place and the faussebray, on part of the North, and on the West and South sides, is about 40 feet, of which 10 feet are appropriated to stabling. The roof of these stables, which is 10 feet high, forms the terreplein of the faussebray, and is surmounted by a parapet of 5 feet. Thus the faussebray is 15 feet high interiorly, but exteriorly the scarp of that work is 40 feet in extreme height, including the depth of the ditch, which is for the greater part cut out of the solid rock, immediately below the scarp revetment of the faussebray, without an intervening berm. This revetment is 5 feet thick. The width of the ditch is 25 feet: its depth varies, but is greatest on the river front, where it is 25 feet. The space between the counterscarp and the exterior line of works varies, as was before mentioned. It is least on the West side, where it is only 60 feet, and greatest on the East side, where it is 300 feet wide. The height of the outer line of works is 14 or 15 feet, the thickness of its parapet being 3 feet, and that of its rampart varying from 10 feet, on the West and South sides, to 14 feet on the East side, of the Fort.

The gateways are nine in number, very intricate, and all containing excellent bombproofs.

CHAP. IV. 1818. The outer ones are on the North, the inner ones on the Eastern side. The Fortress is much weakened, on this last mentioned side, by the Pettah, which extends to within close musket shot of the outer line of works. But the Pettah itself is capable of defence, as it contains a great many strong and lofty buildings; an old decayed rampart surrounds the greater part of it, and, on the present occasion, the Garrison had barricaded all the entrances into it, with large beams of timber. Besides the disadvantage of the Pettah running so close to the works, the defences of the Fort are further impaired by a village, called Sumnaree, situated on the left bank of the river, nearly opposite to the outer gate of the Fort, which communicates with the Pettah. A thick grove of mango trees, 400 yards in depth, also runs along the same bank of the river opposite to the South-West angle. The country is perfectly flat to a considerable distance around the Fort. The soil on the left bank of the river is a black mud, about one foot in depth, resting on a white sandy rock, soft and easily worked at the surface, but increasing in hardness in proportion to its depth. The opposite bank of the river is entirely a shelving rock covered with loose sand, in many places to some depth. The Fort is said to have been built about sixty years, and the works to have been loopholed by an Engineer, who came from Delhi for

the purpose. The Garrison, from the best information that could be collected, was estimated, when we arrived before the place, at 700 men. CHAP. IV. 1818.

In the reconnoissance which the Engineers made, the Garrison allowed them to ride along the right bank of the river, immediately opposite the Fort, without interruption, as some negociations were going on at the time, and thus a good view was obtained of the defences of the inner and outer lines, on the South and West sides; but nothing could be seen of the ditch or faussebray, the existence of which was only known from the reports of the Natives, who all differed in their accounts of the situation and dimensions of these works, describing the faussebray merely as a range of stabling. Very little could be ascertained regarding the strength of the Fort on the East and North side, as the Garrison occupied the Pettah, and the village of Sumnaree.

PROJECT OF ATTACK.

From the limited information which was thus obtained, the Commanding Engineer recommended an approach from the right bank of the river, against the South-West angle, for the following reasons; First, because in order to attack the East front, it would be necessary to carry the Pettah, which in all probability could not be effected, without suffering such loss as would cripple our future operations. Secondly,

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the same objections existed to an attack on the North side, and to the Southward the ground on the left bank of the river was too confined for the necessary operations. Thirdly, that the ground on the right bank of the river was the most favorable for the construction of the necessary works.

The following was the plan he proposed: to construct the batteries (1) and (2) in the prolongation of the West and South faces, and at the distance of about 500 yards from them, in order to destroy the defences of those fronts, and to enfilade them. Each battery to have a place of arms attached to it, and to contain 2 guns, besides which, No. 1 battery was to be armed with 2 mortars and 2 howitzers for bombarding the place. A parallel (B) for 200 men was to be constructed the same night, in the mango grove, between these two enfilading batteries.

From the parallel (B) he proposed to advance by the zigzags B C D E F, to the bank of the river, along which the second parallel was to be established, and on its right flank the breaching battery (3) for 4 guns. This was to be armed with the same guns, which were to be withdrawn from the batteries (1) and (2), as soon as the defences of the Fort were ruined.

The bottom of the revetments of the towers (*y*) and (*z*), which were supposed to be of mud

faced with stone, to be loosened by the breaching battery, for the purpose of enabling the Miners to form chambers for destroying them; and when this was effected, lodgments to be established in their ruins, and the intermediate curtain to be converted into a parallel; that portion of it, which was in the line of fire of the breaching battery, being levelled, in order that the bottom of the inner wall might be seen over it. From behind this lodgment, he proposed to sink a shaft, and working from thence, to blow in the counterscarp opposite to the curtain (f) which was to be breached; and he projected some further mining operations on that side, which were to ruin the scarp of the ditch, and to destroy one of the interior towers.

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As much depended on confining the Garrison, he proposed that an establishment should be made opposite to the outer gate on the North side of the Fort, but it was necessary to postpone this till a reinforcement arrived.

ATTACK OF MALLIGAUM.

May the 18th.

All the intrenching tools and materials collected for the siege, having been carried down at 5 P. M. to the Engineer Depôt, which was established in rear of the mango grove, the working parties for the night assembled. At dusk the Engineers marked out the enfilading batteries (1) and (2) about 500 yards distant

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from the South-West angle of the body of the Place, and in the prolongation of the South and West faces. The former was intended for 2 eighteen-pounders, 2 eight-inch howitzers, and 2 eight-inch mortars: the latter for 2 twelve-pounders. The parallel (B) about 200 yards in length, and 300 distant from the bank of the river, was also marked out. As soon as it was dark, the working parties filed off to their respective works, and commenced their operations. About eight P. M. the enemy made a sortie from their own left, along the bank of the river, and attacked the covering party posted in the grove, in front of the working party, constructing the parallel. This sortie was supported by a sharp fire from the guns in the Fort, and of matchlocks from the lower wall. The Arabs behaved with great gallantry, fighting from tree to tree, and were engaged hand to hand with a detachment of the Madras European Regiment, who could not form line, owing to the nature of the ground, but who succeeded in repulsing them, after a short and sanguinary conflict, in which Lieutenant Davies, the Commanding Engineer, was unfortunately killed.*

* This Officer has scarcely left his equal behind him in zeal, perseverance, and activity. His whole soul was devoted to the service. In the presence of an enemy, he almost denied himself the necessary support of food and sleep; no difficulty seemed to appal him; and he carried the plans he

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May the 19th.

The batteries (1) and (2) opened on the Fort at day-light, the former with tolerable effect: but the twelve-pounders in the latter were found to make little or no impression on the defences of the inner Fort. The enemy returned the fire from 7 or 8 guns, of all calibres, from nine-pounders downwards, the greater part of which were disabled and silenced by our guns in the course of the morning. During the night, the approach B C D E F was constructed, which afforded tolerable cover, and a small portion of the second parallel at the head of the zigzags was also completed, in which three embrasures

had formed into execution with a courage and perseverance, which deserved success if they could not always command it. When not actively employed, his time was entirely given up to the study of his profession, and to the instruction of his little body of Sappers and Miners: nor can higher proof of his merit be desired, than the proficiency attained by these men, during a period of active service, in duties entirely new to them. Having alluded in a former note to the reflections thrown out by a cotemporary writer, against his temper, I shall only add, that it was too often tried by the vexatious opposition, which he experienced to his enlightened views, whilst endeavouring to place his Department on a more efficient footing. His brother Officers of the Corps of Engineers have determined to erect a monument to his memory, and to that of Lieutenant Nattes, who fell shortly after, hoping that this record of their esteem and respect, whilst it perpetuates the names of those distinguished Officers, may also serve as an incitement to others, to follow their example, and emulate their fame.

CHAP. IV. 1818. were opened to protect the left flank of the parallel. A battery for 2 six-pounders was prepared at (G), and the adjoining avenues and gardens were occupied. At ten P. M. the enemy made a sortie, to attack this post, but were repulsed without loss on our part. The smallness of our force did not admit of our taking possession of the whole village.

May the 20th.

The village (H) on our left, which had been deserted by the inhabitants during the night of the 19th, was occupied by a party of Arabs, who at 10 this morning made a bold attack on our outposts, but were soon repulsed and driven out of the village by a charge of the Sepoys of the 13th Madras Native Infantry, under Captain Robson. The eighteen and twelve-pounders, in batteries (1) and (2) were fired but seldom, on account of a scarcity of shot. The approaches were completed to the proper width, and 2 six-pounders were placed in the battery at (F), to scour the river and destroy the defences of the lower work. During the night the parallel was extended, without loss, about 140 yards to the right, along the bank of the river, and at the distance of 150 yards from the exterior works of the Fort.

May 21st.

The right of the parallel was extended 150 yards, along the bank of the river; and the

breaching battery (3), of four guns, was constructed at the distance of about 150 yards from the enemy's exterior line of works, on the South side of the Fort. On the right of this battery, one mortar was placed, and at the extreme right a return was formed, for the protection of this flank of the trenches.

May 22d.

The guns were brought up from the batteries (1) and (2), and were placed in the breaching battery after day-light, the enemy's fire being kept under by a continued fire of musketry from the trenches, and by the six-pounders placed at (F) on the left of the parallel, which enfiladed the South face of the exterior line of works. In prosecution of the proposed plan of attack, the battering guns opened immediately afterwards, for the purpose of destroying the defences of the lower work, and forming holes in the towers (*y* and *z*), for the Miners to lodge themselves. These towers, however, proved to be of solid stone and chunam, so that it appeared impossible to effect this object. Hence a change in the plan of attack became necessary, and it was therefore resolved to breach the lower wall, and form a lodgment on its rampart.

From the arrival of a small reinforcement, we were enabled, during the night, to take possession of the village of Sumnaree, and the adjoining gardens, and to occupy a strong posi-

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tion (1) on the bank of the river, opposite to the principal gateway of the Fort.

On the right of this position, a small place of arms, and a battery (4) for 2 six-pounders, were constructed, into which the guns from the battery (G), which was about 170 yards in rear of this position, were brought up, and that battery was dismantled. This new post, besides distracting the enemy's attention, put a stop to the free ingress and egress, by the gateway, which they had formerly possessed; and consequently caused them to be more exposed to our shells, than heretofore.

May 23d.

The breaching guns effected a good breach in the curtain of the lower wall, so as to discover a part of the faussebray. The rampart at the breach proved too narrow to admit of forming even a tolerable lodgment on it, and information led us to believe that there was no cover between it and the ditch. It was therefore resolved to breach the faussebray and inner wall, by firing over the breach in the exterior work. During the day a five-and-a-half-inch howitzer was placed in the battery (F), and threw some shells between the works, which annoyed the enemy much, and entirely kept down their fire from the outer wall.

May 24th.

The breaching guns brought down the top

of the faussebray, and commenced firing upon the body of the place, as low as possible. About four P. M. a shell from battery (F) blew up a small powder magazine in the Fort. CHAP. IV. 1818.

May 25th.

The breach was extended to the right and left. In the afternoon, the parapet and upper part of the revetment fell down, in consequence of the lower part being ruined.

May 26th.

At four P. M. the breaching guns succeeded in making a hole through the center of the curtain. The breaching battery was enlarged during the night, to receive a howitzer. This day the 17th Chicacole Light Infantry joined the Detachment.

May 27th.

The battering continued with the eighteen-pounders only, as the twelve pound shot were expended. All the guns ran at the vent, in consequence of the continued firing, and had become almost unserviceable. At four P. M. more of the upper part of the rampart fell down, forming to all appearance an excellent breach. Guns were fired at intervals during the night to keep the breach clear.

May 28th.

The battering guns were employed in cutting away the sides of the breach, so as to form an ascent on each side for mounting the rampart.

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The breach was then reported practicable; and it was determined to assault the Fort at day-light, next morning.*

ARRANGEMENTS FOR THE ASSAULT.

Three simultaneous attacks were ordered to be made, on different sides of the place; one on the Pettah, the second on the exterior line of works, and the third and principal one on the breaches. The first had for its main object the occupation of the Pettah, to prevent the escape of the Garrison into it, on the assault of the Fort. The second party were to take possession of the outer walls by escalade, between the great gate and the ditch, and to establish themselves there, and as it was supposed that they would be able to find cover and command the passage of the ditch, no difficulty was contemplated in effecting their lodgment. Both of these attacks it was hoped would distract the attention of the Garrison, and would enable us, if repulsed at the breach, to have recourse to extensive mining operations.

The party for the attack of the Pettah con-

* Before the assault was finally decided upon, the expediency of forming a lodgment on the outer breach, and of establishing a battery there against the inner works, had been discussed; but this measure was over-ruled in consequence of the opinion of Lieutenant Nattes, who represented that these operations would probably be attended with as heavy a loss, as was likely to result from the immediate assault of the whole of the works on that side.

sisted of 500 Sepoys, accompanied by 50 Pioneers, not including the men who carried 5 scaling ladders, the whole led by an Engineer Officer. CHAP. IV. 1818.

The party for the escalade of the outer wall consisted of 50 Europeans, 250 Sepoys, and 50 Pioneers, with 5 scaling ladders; and was also led by an Engineer Officer.

The storming party for the assault of the breach was led by Lieutenant Nattes, the Commanding Engineer, and was composed of the European Sappers and Miners, and a Serjeant's party of Europeans, each carrying besides his arms, a bundle of grass for filling up the ditch. They were followed by the Native Sappers and Miners with scaling ladders, 75 Europeans with bundles of grass, and 80 Sepoys; 125 Sepoys were ordered to file to the right and left on passing the outer breach, and to scour the outer ramparts, taking possession of the huts between the walls. A reserve of 50 Europeans and 300 Sepoys were to follow this party, and had orders also to extend to the right and left, if it should appear necessary; otherwise they were to remain under cover, without the exterior walls.

At seven o'clock P. M. the several parties for the assault occupied the positions pointed out to them, in the vicinity of their respective attacks. The party for the breach remained

CHAP. IV. 1818. during the night, in the breaching battery and adjoining parallel. That for the Pettah bivouacked on the left bank of the river, about 800 yards North of the Pettah. The party for the outer wall were stationed during the night in the gardens of the village of Sumnaree.

May 29th.

At half-past three A. M., a brisk fire from the breaching battery (3), and from the mortar battery (1), was directed against the breach, and the space between the walls. At broad daylight, the storming party advanced in the prescribed order. The Engineer who led, on reaching the summit of the breach on the first wall, waved his hand to his party, the meaning of which it is impossible to ascertain, as immediately afterwards he received several shots from a retrenchment (*x*) that had been constructed by the enemy for the defence of the breach, by which he was mortally wounded.*

* Lieutenant Nattes was alike admirable as an Officer, a Gentleman, and a Christian. With the science and zeal, which become the military character, he combined the urbanity of manners, the liberal accomplishments, and the warmth of heart, that constitute the ornaments and the bond of private life, together with those virtues, which are the fruits of sincere devotion. Nothing could be more distressing, than to see him cut off in the bloom of youth, just as his mild and unassuming merits were becoming generally known. Only a few hours before he died, he committed his thoughts to paper, in which he expressed, that the grief, which he knew

The Officer commanding the storming party afterwards mounted the breach, but on letting down his scaling ladders, on the other side of the wall, it is said that they all fell out of the men's hands, who held them.

This circumstance being reported, orders were given for the whole party to retreat to the trenches, which was effected in a steady manner. Immediately afterwards the Garrison hung out a flag of truce, that we might carry away our dead and wounded.

Meanwhile the party for the attack of the Pettah advanced at a quarter before four o'clock, took possession of a considerable part before day-light, and by seven o'clock gained entire possession of it, with a trifling loss. The other party did not escalade the outer wall of the Fort, as intended. There was some difficulty at first, in adjusting the length of the ladders, and after this was rectified, a delay occurred, whilst the Officer commanding the party was employed in posting sharpshooters to keep down the enemy's fire. Before this was effected

that his dear parents and some valued friends would feel, in case of his fall, was the only consideration, that weighed upon his mind, in anticipating the probability of such an event. In regard to his own feelings, he concluded by quoting some energetic lines from an admired modern British Poet, expressing a decided preference to the death of the warrior in battle, as contrasted with the lingering illness of a sick bed.

CHAP. IV. 1818. to his satisfaction, the failure of the storming party at the breach became known, and the attempt was of course abandoned, having experienced a trifling loss, in placing the ladders.

During the night temporary barricades were constructed across the principal streets of the Pettah, upon which the enemy made several attacks, but was constantly repulsed.

May the 30th.

After the failure of the assault on the Fort, it was recommended that the attack on the West side should be abandoned, for the following reasons. First, the total want of guns and ammunition, the breaching guns having become unserviceable, and all the shot being expended. Secondly, the length of time that would probably elapse before the arrival of a reinforcement of artillery. Thirdly, on account of the threatening state of the weather, and the expected approach of the monsoon, which might render the river an insurmountable obstacle to our operations on that side.

It was therefore proposed to commence an entirely new attack on the East face of the Fort, as the possession of the Pettah afforded our troops ample cover, and a safe approach, on that side, to the outer wall, the nature of which was now for the first time ascertained, as also a facility of mining, to which the river on the West side was an insurmountable obstacle.

In order to confine the Garrison as much as possible, it was proposed to leave a battalion of Sepoys on the West side of the river, which might take up its quarters in the village (H), whence parties to be relieved occasionally might be sent to the post (I), and to a redout, which it was recommended to construct near the breaching battery. The streets of the Pettah, communicating with the Fort, to be barricaded, by which means an excellent parallel would be obtained, along the whole extent of that side of the Fort. It was then proposed to establish mines under the three towers (*l*, *m*, and *n*) of the outer wall, and for this purpose to sink shafts within the houses immediately opposite to them, and eventually to form lodgments on the breaches caused by these mines, in consequence of which it was expected, that the enemy would be driven from the outer wall. CHAP. IV. 1818.

Having proceeded so far, it was not expected that much more could be done till the arrival of a reinforcement of artillery.

May 31*st*.

Working parties were employed in preparing materials. Battery (1) was dismantled, and during the night, permanent barricades (*o*, *p*, *q*, and *r*) were constructed across the principal streets of the Pettah.

June 1*st*.

The Detachment encamped in a new position

CHAP. IV. 1818. to the North-East of the Pettah, at the distance of about two miles from it. A redout (L) for 100 men was commenced at night. Two battalions of Native Infantry, 50 Europeans, and the Sappers and Miners, remained on the old ground, during the construction of this redout.

June 2d.

The same work was continued during the night.

June 3d.

This day 2 iron eighteen-pounders, from the Hill Fort of Unkye Tunkye, arrived in camp: and the redout was completed in the course of the night.

June 4th.

The party on the West side of the river, with the exception of one battalion left for the defence of the post (I), and of the redout, joined Head Quarters. During the night, an approach to the redout, from the parallel, was constructed.

June 5th.

All the Sappers and Miners, under an Engineer Officer, took up their quarters in the Pettah, and immediately commenced sinking shafts, opposite to the towers (*l*, *m*, and *n*) of the outer wall.

June 6th.

The mines were continued this day and night, without intermission.

June 7th.

The two mines opposite to the towers (*m* & *n*)

were abandoned, on meeting with a stratum of hard rock, within 5 feet of the surface. The mine opposite to the right tower (*l*) proceeded slowly, the soil being rocky and hard.

June 8th.

The mine opposite to the right tower was continued, and about 30 feet of gallery completed. This morning, a little before day-light, the mine fell in, in consequence of the little depth of soil above, and of a heap of stones under which the gallery ran, which gave way, and buried the European Miner, who was fixing the sheeting boards. Fortunately, the gallery was covered over, without being perceived by the enemy.

June 9th.

During the night, battery (5) on the North side of the Fort, for all the mortars, and 2 guns expected from Seroor, was commenced about 400 yards from the outer wall. The distance of the shaft from the tower (*l*) was this night correctly ascertained by actual measurement, by carrying a line across.

June 10th.

Battery (5) was completed during the night. The Bombay detachment arrived, consisting of 1 battalion of Native Infantry, and a detail of Artillery, with 4 eighteen pounders, 2 brass twelve-pounders, 1 ten-inch, 4 eight-inch, and 1 five-and-a-half-inch mortar. The mine pro-

CHAP. IV. 1818. ceeded very slowly, in consequence of the rocky nature of the ground, and of the men not having been sufficiently practised beforehand in the fixing of gallery frames.

June 11th.

Battery (5) opened at daylight with 1 ten-inch, and 5 eight-inch mortars, and 2 five-and-a-half-inch howitzers. At eleven A.M. two of the enemy's powder magazines blew up in quick succession, bringing down a large portion of one of the curtains of the body of the place from the very foundation, and exposing the whole interior of the Fort. In consequence of the extent and apparent practicability of the breach caused by the explosion, it was resolved that no time should be lost in taking advantage of it. Accordingly, during the night, the battery (6) for 2 eighteen-pounders, was constructed in a Mussulman's burying ground, 320 yards from the works, in order to destroy the defences of the inner wall. Another battery (7) for 4 eighteen-pounders, was commenced on the bank of the river, opposite to, and 600 yards distant from the outer wall, which it was resolved to breach, in front of the spot, where the explosions above-mentioned had laid open the interior line of works.

June 12th.

Negociations being entered into, we were enabled to proceed with battery (7), which was

completed in the course of the day. This night the gallery reached the foundation of the tower (*l*). CHAP. IV. 1818.

June 13th.

The Garrison surrendered. A Jemidar's party of Native Infantry was admitted into the Fort, and the British flag was hoisted upon one of the towers at noon.

June 15th.

The Garrison marched out of the Fort at a quarter past nine A.M., and grounded their arms before our troops, who were drawn up to receive them in front of the principal gateway. They were afterwards marched off to a part of the Pettah, allotted to them for quarters.

The Garrison marched out only 350 men, for a party made their escape, when the Pettah was taken. They acknowledged to have lost 35 killed and 60 wounded during the siege.* Our loss was much more severe, being 5 officers killed, 8 wounded, and 220 rank and file killed and wounded. These casualties were principally occasioned by the skill of the Arabs, who are very expert marksmen, in the use of their matchlocks, with which they picked off those men, who exposed themselves in the trenches. They certainly made a very gallant defence, and their consideration in allowing us to carry off

* This is so unusual a proportion, that in all probability it must have been a misrepresentation.

CHAP. IV. 1818. our dead and wounded, as well as their respect for flags of truce, and of negociations entered into, do them no less credit.*

ENGINEER DEPARTMENT.

Lieut. Davies, *Commanding Engineer (killed).*
" Nattes, - - - - *Staff* - - - - - *(killed).*
Ensign Purton, *(severely wounded).*
" Underwood, *(slightly wounded).*
" Lake.

27 European } Sappers and Miners.
45 Native }

STORES, &c.

10,277 Sand Bags.
500 Gabions.
470 Fascines.

And sufficient intrenching tools for the use of the Sappers and Miners.

ORDNANCE.

At the commencement of the Siege.

2 Iron eighteen-pounders } rendered
2 Iron twelve-pounders } unserviceable.
8 Brass six pounders.
1 Eight-inch mortar.
1 Five-and-a-half-inch ditto.
2 Eight-inch howitzers.
2 Five-and-a-half-inch ditto.

Joined on the 3d of June.

4 Iron eighteen-pounders.

* After they had laid down their arms, in front of our troops, Lieutenant-Colonel M'Dowall showed a laudable regard for good conduct in an enemy, by restoring their side arms, an indulgence so gratifying to their feelings, that many of them acknowledged it with tears.

Joined on the 9th of June.

4 Iron eighteen-pounders.
3 Brass twelve-pounders.
1 Ten-inch mortar.
4 Eight-inch ditto.
2 Five-and-a-half-inch howitzers.

AMMUNITION EXPENDED.

Eighteen-pound shot	3462
Twelve-pound shot	2395
Ditto grape	21
Six-pound shot	500
Ditto grape	50
Ten-inch shells	98
Eight-inch ditto	1004
Five-and-a-half-inch ditto	233
Eight-inch carcasses	6
Gunpowder, *lbs.*	35,500

REFLECTIONS.

If it were not for the Pettah, which weakens the East front so materially, Malligaum might be considered a perfect specimen of the strongest kind of Native Forts, so far as regards the size and disposition of the works, and also in reference to the rockiness of the soil, on which it is placed.

The chief objection to the original project of attack is, that even if it had been possible to destroy the towers (*y* and *z*) by mining, as proposed, the intervention of the river between them and the trenches, must have proved an insuperable obstacle to that species of uninterrupted and comparatively secure communica-

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tion, at all hours, which is desirable, if not indispensably necessary to a besieging army, in the event of an obstinate and protracted resistance, in which every successive work is disputed inch by inch. Accordingly it has been asserted, that the Fort was attacked in its strongest side; but it must be remembered, in justice to the excellent Officer now no more, by whom the plan was formed, that he had only a choice of difficulties. The side actually attacked, but for the obstacle that has been noticed, was far from being the strongest. On the contrary, if success could have been anticipated on any side, from distant breaching batteries, without the necessity of progressive approaches, the side actually attacked, or the West side, which like it can only be approached by crossing the river, may undoubtedly be considered the most favourable for such an operation; for on the two other sides of the Fortress, the intricate works defending the gateways, and one extra inclosure, offer additional difficulties to an assault. But the chief reason which induced Lieutenant Davies to commence his operations from the opposite side of the river, was the reluctance which he felt to an attack on the Pettah, which otherwise must have been an indispensable preliminary. For in the event of a vigorous resistance, which there was every reason to anticipate, he thought that Lieutenant-Colonel

M'Dowall's original force would be so much weakened, by the loss it must necessarily sustain in the capture of the Pettah, as to become entirely unequal to those ulterior operations, without which the fall of the Fortress itself could not be expected. Under this impression, having decided upon opening the trenches from the opposite side of the river, I shall only remark, that if he could have foreseen the impossibility of destroying the towers (*y* and *z*) by mining, as originally intended, he would, in all probability have breached any other part of the South side, or some part of the West side of the outer wall, in preference to the re-entering angle between these two towers.

If, on the contrary, we had arrived before Malligaum, in sufficient numbers to have rendered a more vigorous mode of proceeding advisable, the Pettah would have been immediately assaulted, after the capture of which, the towers (*l*, *m* and *n*) might have been destroyed by mines, either by driving galleries under them for that purpose, or by attaching the Miners to their scarp, for if the former method proved impracticable, on account of the rockiness of the soil, the latter might have been effected without difficulty, as the towers were constructed of mud. After these were ruined by mining, lodgements on the breaches might have driven the enemy from the outer line, and

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confined him to the body of the Place and faussebray. The South side of the outer line thus falling into our possession, might have been converted into a convenient parallel, extending from the Pettah to the tower marked (*z*) in the plan, near to which a breaching battery might have been constructed to breach the front (*a b*), either in the spot where the breach was actually effected in the present instance, or in the curtain, near the tower (*b*).

It was before-mentioned, that Lieutenant Nattes, when on the summit of the breach, was seen to wave his hand, and that when the storming party who followed him mounted it, immediately afterwards, the ladders dropped out of the hands of the men, whilst in the act of lowering them, for the purpose of descending the wall in rear of the breach. It has been confidently asserted, that the motion made by Lieut. Nattes, was a signal for the storming party to retire, in consequence of his having discovered from that elevated position, certain insuperable obstacles, previously unknown;* and it has also been of course implied, that the ladders were considerably shorter, than the height of the wall alluded to, and consequently that they proved unserviceable, at the very moment when required for use. Of these assertions, I consider the one more than doubtful, the other decid-

* See Lieut.-Colonel Blacker's Memoir.

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edly erroneous. For, on the most minute examination of the works, after the place surrendered, the surviving Engineers found, that the only obstacle to the success of the assault, and certainly a very formidable one, was the faussebray. But Lieutenant Nattes fell on the breach, from whence he could not possibly have seen more than 5 or 6 feet of the ditch of that work, the actual depth of which can no where be ascertained without advancing to the very crest of its counterscarp. It is evident, therefore, that nothing seen by him, on mounting the breach, could give him a more formidable notion of that work, than he entertained before, for although the precise strength of the faussebray was not known, its depth was by no means an unforeseen obstacle, but one considered, and in a certain degree provided for, in the plan of assault.* In regard to the breach itself, it is true

* Extract of an official letter, written the day before the assault, from Lieutenant Nattes to Lieut.-Colonel M'Dowall.

"That a ditch does exist, and that behind it there is a "loop-holed faussebray, are facts. That these are obstacles "is equally true, but I do not consider them insuperable. "Similar obstacles in Spain were overcome by the means "which I propose," &c. &c.

The above quotation sufficiently proves the incorrectness of the assertion, that Lieutenant Nattes discovered certain unforeseen obstacles, on mounting the breach of the outer wall. He had, however, in calculating the quantity of materials for filling up the ditches, estimated its depth at 20 feet, whereas it was afterwards found to be 25 feet.

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that the original wall in the reverse of it, remained nearly entire, but this was only 8 feet high, and the ladders carried to the spot were 18 feet long; and the enemy had made no attempt whatever to scarp away the ground at the bottom of the wall alluded to. In fact, the only work, constructed by them behind the breach, was the retrenchment marked (*x*) in the plan, which scarcely deserves the name, for it consisted of a trench, not 2 feet in width and depth, and of a parapet equally insignificant. (See the Section through *e f* in Plate XV).

As the wall before described in the reverse of the breach, was a little lower towards the left, than on the extreme right, where Lieutenant Nattes himself had ascended, it is possible that the waving of his hand may have been intended to caution the storming party to incline a little to their left; but for my part, as he must have despised the paltry obstacles at and in the immediate vicinity of the breach, I have not the smallest doubt but that the waving of his hand was a signal to the troops to advance without loss of time, in the hope of their being able to close with the Arabs in their retrenchment, before the latter could effect their retreat into the faussebray. That the storming party did not advance further, as they certainly might have done, is, however, no discredit to them, for besides the loss of the Engineer who led the as-

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sault, their own Commanding Officer was badly wounded, and the second in command killed on the breach,* where the head of the column remained with great coolness, exposed to a destructive fire, until they received directions to retire, which they did in good order. If these unfortunate casualties had not paralized the efforts of the troops at the breach, which caused the escalade on the outer line on the other side of the Fort also to be relinquished, it is not altogether impossible, but that the three simultaneous attacks, vigorously conducted, might have produced such an effect upon the enemy, as to lead to the immediate surrender of the place.

Lieut.-Colonel M'Dowall takes up his quarters for the monsoon.

After the capture of Malligaum, as the rains had already commenced, Lieutenant-Colonel M'Dowall's detachment took up their quarters for the monsoon. In the mean time, the force under Lieut.-Colonel Adams had been employed in the siege of Chanda, which we shall now proceed to relate, after briefly noticing the previous operations.

Movements of the Peishwah after his defeat at Poonah in Nov. 1817.

Subsequently to the defeats sustained by the Peishwah in November 1817, in the neighbourhood of Poonah, he no where attempted to make head against our troops in force, but wandered about as a fugitive, always accom-

* Lieutenant Kennedy of the 17th Native Infantry, an Officer of great merit.

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panied, however, by a considerable number of armed followers. In the month of March 1818, he was induced to move towards Nagpoor, by invitation of the Rajah, but being closely pursued and nearly overtaken by Brigadier-General Doveton, on marching to the Northward to avoid that General, he was intercepted by Lieutenant-Colonel Adams, who with his division had for some time occupied a position at Hinghinghaut, South of Nagpoor. By making a forced march from that place on the night of the 16th of April, Lieutenant-Colonel Adams fell in with the Peishwah's troops next morning, near the village of Seunee, and instantly attacked them. Those who attempted to resist were immediately routed, and the whole dispersed in great confusion. After this affair, Colonel Adams returned to Hinghinghaut, where he remained until he was joined by the Hussingabad battering train, and the Madras Artillery under Major Goreham. On the 5th of May he marched towards Chanda, the only place of importance in the Southern part of the Nagpoor country, and encamped before it on the 9th, about three miles to the North-West of the city.

His troops are dispersed by Lieut.-Col. Adams, who marches against Chanda.

The force of Lieut.-Colonel Adams's Division was as follows:

BENGAL TROOPS.

2 Brigades of Native Horse Artillery.

The 5th Regiment of Native Cavalry.
The 6th ditto.
1 Squadron of the 8th ditto.
1 Company of Foot Artillery.
The 1st Battalion of the 19th Regt. of N. Infantry.
The 1st Battalion of the 23d ditto.
4 Companies of the Grenadier Flank Battalion.
5 Companies of the Light Infantry ditto.
1 Company of Pioneers.

MADRAS TROOPS.

Half a Troop of European Horse Artillery.
1 Company of European Foot Artillery.
The 1st Battalion of the 1st Regt. of N. Infantry.
The 1st Battalion of the 11th ditto.
4 Companies of the Flank Battalion.
1 Company of Pioneers.
1000 Reformed Horse of His Highness the Nizam's.

Description of Chanda,

The city of Chanda is situated on a plain, at the distance of 5 miles from the confluence of the Wurda and Painganga Rivers. On the East side are two considerable suburbs, the Lal and Begum Pettahs, the former of which is very large, and extends upwards of a mile to the East. Part of the North side is covered by a large Tank, which supplies abundance of water at all seasons. Two Nullahs, dry in the hot season, run along the East and West sides, and join opposite to the South. A thick jungle extends along the North and East sides, in some places within half a mile, and three quarters of a mile of the walls, close to which there are also gardens on these two sides. On the

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other sides the ground is open (See Plate XVII).

And of its fortifications. The inclosure of the place consists of a rampart from 8 to 12 feet high, and from 12 to 16 feet thick, surmounted by a loop-holed parapet, 8 feet high and 4 feet thick, and flanked at moderate but irregular distances by round towers. The whole is constructed of excellent masonry, of a species of sand stone with chunam, in a high state of repair, and complete every where, excepting that part of the wall, which bounds the Southern side of the Tank, which has no parapet. The Bala Killa, or Citadel, is situated about the middle of the East side, 170 yards from the rampart. The height of its wall is 45 feet, and though apparently of a more ancient construction than that of the city, it was still in a good state of repair. An incomplete outer rampart of masonry surrounded this work. There are but few substantial houses within the walls of the city, the Palace being the only stone building of any importance.

ATTACK OF CHANDA.

May 10th.

Lieutenant-Colonel Adams personally reconnoitred the North and East sides, protected by a considerable detachment of Cavalry and Infantry, which the distance from camp, and the strength of the Garrison (reported to be 3000 men), rendered necessary. The Pioneers were employed in preparing materials.

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May 11*th.*

The reconnoissance was completed on the West and South sides, and it was determined that the attack should be made on the South-East angle, this point being preferred, on account of the cover afforded by the Pettah tope,* to the advanced detachments, and by a ravine offering a good approach to within half musket shot of the angle. During this day's reconnoissance, the enemy were driven from a small hill (*a*) on which they were constructing a redout. The Pioneers, and a working party of 100 Dooly-bearers, were employed as on the preceding day.

May 12*th.*

The Pioneers and working party of Dooly-bearers were still employed as before.

May 13*th.*

The troops moved their camp to a new position, at the distance of 2 miles to the Southward of the city.

The hill from which the enemy was driven on the 11th, and to which they had not returned, was occupied; and the Bengal Native Horse Artillery, and a troop of Cavalry, took possession of the Begum Pettah.

The company of Madras Pioneers, and 100 Dooly bearers, were sent out at twelve o'clock, to collect and prepare materials. At eight P.M.

* A grove.

CHAP. IV. 1818. the company of Bengal Pioneers, and a working party of 100 Sepoys, commenced a sunken battery for 2 guns, and a position for 1 howitzer, on the hill (*a*) about 850 yards from the South-East angle, to silence some large guns on the South face, which obstructed our communications with the advanced detachment. The Madras Pioneers, and a fresh working party, relieved them at three o'clock in the morning, but the soil proving excessively rocky, the work was not finished at daybreak, and was accordingly masked.

May 14th.

During the day the Bengal Pioneers, and 100 Dooly-bearers, collected materials. The Madras Pioneers finished the battery at night.

May 15th.

The battery opened at daybreak, and had the desired effect.

The Bengal Pioneers, and 100 Dooly bearers, prepared and collected materials.

March 16th.

The whole of the Pioneers, and the same number of Dooly bearers, employed as yesterday.

May 17th.

The Pioneers, and 130 Dooly-bearers collecting materials, filling sandbags, &c. The Pioneers ceased work at twelve o'clock. A sufficient quantity of materials having now been

prepared, the following batteries were commenced at eight P. M. by the two companies of Pioneers, and a working party of 300 Sepoys;

First, A battery (*b*) of 5 embrasures, at the distance of about 400 yards, for 4 twelve-pounders, to fire on the defences to the right of the South-East angle, the point selected for the breach.

Secondly, A sunken battery (*c*), at the same distance, for 3 six-pounders, to enfilade those defences: and

Thirdly, A battery (*d*), at the distance of 630 yards between the above, for two howitzers.

The working parties were discovered, and the enemy opened a fire, which, however, did not obstruct the progress of the work.

May 18*th*.

The batteries opened at daybreak. The light twelve-pounders proving insufficient to ruin the parapet, 2 of the eighteen-pounders were brought into the battery, and the whole played with good effect. A trench of communication was to have been opened from the Pettah to the enfilading battery; but it was now considered unnecessary, as the fire of the enemy, both from guns and matchlocks, was completely kept under; the gate by which they might have sallied, nearest to the battery, was ascertained to be blocked up; and the party of infantry for its protection, found good cover behind the bank of

CHAP. IV. 1818. the Nullah. A working party of 130 Dooly-bearers filled sand bags during the day. At eight P.M. the Bengal Pioneers, and a party of 100 Sepoys, commenced the breaching battery (*e*) for 3 eighteen-pounders, at the distance of about 200 yards. The Madras Pioneers, and 100 fresh Sepoys, relieved them at midnight, and the Bengal Pioneers returned to work at three o'clock in the morning. The enemy set fire to some huts, in consequence of which they discovered the working party on its approach, and kept up a fire of guns and matchlocks during the night, but without being able to retard the work.

May 19*th*.

The breaching battery opened at seven A. M. The working party of Sepoys had been withdrawn at daybreak, but the two companies of Pioneers continued working till ten A. M., completing a communication with the ravine, and enlarging the shoulder of the battery for a twelve-pounder, to play on the defences flanking the South-East angle. At four P. M. a good and practicable breach of 100 feet was effected, but owing to the distance the troops had to march from camp, the assault was delayed.

The 6 howitzers were brought down at dusk, to the flank of the breaching battery, and a continued fire of round shot, grape, and shells, was kept up during the night, on the breach and adjacent works.

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May 20th.

The Cavalry and reformed Horse having been distributed around the place to intercept fugitives, the storming party, under the command of Lieutenant-Colonel Scott, debouched from the Begum Pettah at half-past five A. M. It consisted of two columns, the right composed of Bengal troops, the left of Madras troops, and was supported by a reserve, consisting of a squadron of dismounted Cavalry, 2 light guns, and the Bengal Light Infantry Battalion. The breach was speedily crowned by both columns at once, when they diverged to the right and left, and at seven A. M. all resistance ceased. A small party of the Garrison had shut themselves up in the Bala Killa, but surrendered without resistance. The enemy had endeavoured to raise a platform during the night, to fire over the breach, but our batteries had prevented them from completing it.

ENGINEER DEPARTMENT.

Lieut. Anderson, *Commanding*.
„ Crawford, Bengal Artillery, *Acting Engineer*.

ORDNANCE.

3 Eighteen-pounder iron guns.
4 Twelve-pounders, brass.
4 Six-pounders.
6 Five-and-a-half-inch howitzers.

The defence of the Garrison during the siege was spirited, but did little injury to the assailants, from the bad management of their ord-

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nance. The small guns were mounted on the towers, and those of larger calibre were placed on platforms, for barbet firing, erected behind the rampart.

Chanda can hardly be considered as a place of strength, the great extent of it alone rendering it indefensible, unless garrisoned by an army. Without a ditch or an outwork, protected only by a single rampart, in no place higher than 20 feet, and surrounded on all sides by Pettahs, and broken ground, to within a few yards of its walls; no European Garrison would think of standing a siege in it against battering guns, and it affords a striking proof of the inconsistency of the Native character, that while they constantly, during the war, surrendered impregnable Fortresses without a blow, they should have thought not only of defending this walled town, but of standing the assault, after a practicable breach was made.

In the attack of a place, which was almost equally vulnerable on every side, there was of course little scope for the display of professional skill, yet it may be remarked, that the advantage taken of the ground by the Engineer, who contrived to bring the troops up to within half musket shot of the walls, without trenches, was highly to his credit. The position selected for the breaching battery is also deserving of praise; and the advantage of establishing it at as

short a distance as possible, was proved by the circumstance of the rampart, which was a very good one, being breached in nine hours after the opening of this battery, although the firing was constantly interrupted by the heating of the metal. The duty in the trenches was unusually severe, in consequence of the heat of the weather, and amongst the victims of it was Major Goreham, a very distinguished officer of the Madras Artillery.

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CHAPTER V.

THE SIEGES OF ASSEERGHUR, NOWA, AND COPAL DROOG.

THE Sieges, which form the subject of the present Chapter, were undertaken after the termination of the War, and two of them, Nowa, and Copal Droog, were altogether unconnected with it. The Fortress of Asseerghur had engaged our attention at different periods, but the attack of it had been postponed, in the first instance, in consequence of the hostilities commenced by the Nagpoor Rajah, and afterwards, perhaps, from a consideration of the inadequacy of our means to reduce it. The Killedar Jeswunt Row Lar, was a warm supporter of the Pindarry system, and even after his master Sindiah

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had signed the Treaty of the 5th of November, he showed a determination to support it, by offering the protection of his Fortress to the Peishwah, when that Prince, after a pursuit by Brigadier-General Doveton, which for rapidity and distance is, perhaps, unexampled in India, fled there in June 1818.

Bajee Row surrenders to Sir John Malcolm.

Fortunately Bajee Row accepted the terms offered him by Sir John Malcolm,* and with his Arabs, who had adhered to him to the last, surrendered to that General. Jeswunt Row Lar had therefore no other opportunity of showing his devotion to the Mahratta cause, than by admitting the Peishwah's family and treasure into his Fort, while the negociations were pending, and by firing on our troops, when, on one occasion, they came within reach of his guns.

The hostile conduct of Jeswunt Row Lar, the Killedar of Asseerghur.

Circumstances did not allow us, to resent this insult at the time,† and the following year, be-

* On the receipt of Bajee Row's overture, that General had proceeded by forced marches with his Division to Asseerghur, having left parties to block up the fords of the Nerbuddah, in the event of the Peishwah trying to get to the Northward.

† It must be confessed that if Bajee Row had refused the terms which were offered to him, we should have been critically situated, and the War might have been greatly protracted. It would have been impossible to besiege the Fortress at that time, for in neither of the Divisions was there a gun larger than a six-pounder (Brigadier-General Doveton's small battering train having been rendered unserviceable before

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fore our preparations for the purpose were completed, the Lar was again enabled to display his hostility to the English, and to mark his determination to uphold any power that promised opposition to them, by offering and affording protection to Appa Saib, their only remaining enemy; who, since his escape from captivity, had been collecting adherents in the Mahadeo hills, and had fled from them to Asseerghur, just as Lieutenant-Colonel Adams's preparations to attack him were nearly completed.

Preparations for the Siege of Asseerghur.

In this attempt, some of his followers were killed and taken, and Appa Saib himself narrowly escaped being intercepted, by a detachment from Brigadier-General Doveton's Division, commanded by Lieutenant-Colonel Pollock, which was stationed for the purpose, on the roads North of the Fortress. As soon as he had reached Asseerghur, Brigadier-General Doveton's Division encamped a few miles to

Malligaum, which at this time still held out), and the rains were just then commencing. The combined Divisions were not then sufficiently strong to blockade the place effectually, so as to prevent the escape of the Peishwah, and they must have remained for six months, before they could have commenced active operations, shut up between the rivers Nerbuddah and Taptee, in a country entirely destitute of supplies, and at that season, one of the most unhealthy in India. It has since been ascertained beyond a doubt, that Sindiah had determined, in the event of Bajee Row taking refuge in his Fort, to take up arms once more in his support.

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the Southward of it, in the neighbourhood of Boorhanpoor; while Brigadier-General Sir John Malcolm, who was the bearer of an order from Sindiah, for the Lar to proceed to Gwalior, took up his ground to the North. As the Killedar refused compliance with his master's requisition, under the most frivolous pretexts, preparations were made for the siege, and they were greater, as regarded the number of men and ordnance, than had been assembled before during the campaign.

The following is a statement of the force before the siege:

BRIGADIER-GENERAL DOVETON'S DIVISION.

Bengal Troops.

6th Regiment of Light Cavalry.
1st Battalion 15th Regiment of Native Infantry.
2nd Battalion 15th Regiment ditto.
300 Pioneers.

Madras Troops.

1 Troop of European Horse Artillery.
2nd Regiment of Native Cavalry.
7th Regiment ditto.
His Majesty's Royal Scots.
" 30th Regiment (one wing).
" 67th Regiment.
Madras European Regiment.
1st Battalion 7th Regiment of Native Infantry.
1st Battalion 12th Wallajahabad Light Infantry.
2d Battalion 17th Chicacole Light Infantry.
2d Battalion 13th Regiment of Native Infantry.
2d Battalion 14th Regiment ditto.
A Detachment of Pioneers.

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BRIGADIER-GENERAL SIR JOHN MALCOLM'S DIVISION.

Madras Troops.

Half a Troop of European Horse Artillery.
Camel Howitzer Battery.
3d Regiment of Native Cavalry.
2d Battalion 6th Regiment of Native Infantry.
1st Battalion 14th Regiment ditto.
A Detachment of Pioneers.

Bombay Troops.

1st Battalion Grenadier Regt. of Native Infantry.
1st Battalion 8th Regiment ditto.
A Detachment of Pioneers.

This respectable force was afterwards increased by a part of the Saughur Division, under the command of Brigadier-General Watson, consisting of some Bengal Miners, two Battalions of Bengal Native Infantry, the 2nd Battalion of the 1st Regiment, and the 2d Battalion of the 13th Regiment, of Native Infantry, and some Artillery and heavy guns.

Description of Asseerghur.

Plates XVIII and XIX.

The Fortress of Asseerghur is situated about two miles from the end of one of the great Western ranges of the Sautpoorah hills, and sixteen miles North of the city of Boorhanpoor. It was besieged and taken by the Emperor Akbar on the first establishment of the Mogul power in the Deckan, and passed from the hands of the Mussulmen to the Mahrattas about seventy years ago, agreeably to a treaty made at Aurungabad A. D. 1750, between Salabut Jung the Nizam of the Deckan, and

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the Peishwah Ballajee Row. It was also surrendered to the English in the Mahratta War of 1803, but was restored to Sindiah immediately afterwards. Being situated in one of the great passes from the Deckan into Hindostan, the possession of this Fortress has always been considered of importance, and the natural defence, which it receives from a precipice of rock, in almost every part, has been increased by a thick and lofty rampart of masonry, which is built on the summit of the rock, and by large cavaliers placed in different parts of it, mounted with enormous guns, which commanded the country around in every direction.* The general height of this position above the plain is 750 feet. Its greatest length is 1100 yards, and its greatest breadth 600. Nearly one half of the rock towards the Westward has been further protected by a second inclosure of good masonry, immediately below it, and following the curved outline of the natural scarp, from which circumstance, it has been aptly styled Kummurgah (or the belt); and on the same side, but not covering so much of the Northern face of the rock, a third inclosure has been added of an irregular form, containing a space

* One of these guns is pompously styled the Lord of the Boorhanpoor Bazar, which the Natives firmly believe it will reach, although fourteen miles distant in a direct line. It is of iron, and carries a ball of 384 pounds.

nearly equal to the area of the upper or principal Fort. This third inclosure, which is called Mallighur, constitutes the lower Fort. The Pettah is situated still more to the Westward, in a hollow intersected by numerous ravines, and lies immediately under the lower Fort, the works of which overlook and command it throughout its whole extent. CHAP. V. 1819.

The entrance of the lower Fort is from the Pettah, and the road to it, which forms a gentle ascent, is well flanked by the works on each side. In every other part the ascent from the Pettah towards the lower Fort is exceedingly steep.

The principal entrance into the upper Fort, near the Western extremity of the rock, is by steep flights of stone steps, secured by five gateways of excellent masonry, by means of which it communicates with the lower Fort, through the second inclosure. There is also a sally-port at the South-East angle, open at top, and protected by five traverses, which affords a direct communication from the upper Fort to the country on that side. The second inclosure before described has likewise a direct communication with the country, by a weak wicket or small gateway at its right extremity, under the middle of the Northern side of the rock.

On the same side, but more to the Eastward, after a descent of about 250 feet, a nearly level

CHAP. V. 1819. space juts out from the North-East angle of the rock, to the distance of about 400 yards, which ground has probably at one time been occupied, and perhaps connected with the works of the second inclosure: for an old gateway of masonry still remains at the extremity of this level, immediately above the descent into the plain; and the road, which leads directly from the country towards the second inclosure, actually passes through this gateway.

The rock, which is the natural boundary of the upper Fort, fails in three places, where of course more attention has been paid to the masonry, than in other parts. First, on the North side, at the part marked (*o*) in the plan, where a very thick double rampart has been built to supply this deficiency. Secondly, towards the East, not far from the North-East angle, at the head of a ravine, which commences in the interior of the Fort, and runs from thence into the plain, extending wide, and branching out into several ramifications in its descent. Across the top of this ravine has been thrown a casemated rampart, nearly 50 yards in length and 40 feet thick; below which at the distance of 50 yards, there is a second wall, which appears to have been intended chiefly for the purpose of preventing the earth from being washed away during the rains. Thirdly, near the South-East angle, where are the works of the

PLATE XVIII.

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sally-port before-mentioned; in front of which a low wall has been built, to prevent this entrance into the Fort from being seen from the country.

There are a good many buildings in the Fort, and some fine tanks and wells. On the North and South sides, the country below the Fort is plain and generally level, but intersected by two or three Nullahs.* At the foot of the hill, on the North side, are several gardens and vineyards, all supplied with wells of water. On the East and West sides, the country is intersected by deep ravines, and ranges of hills, which on one side extend as far as the river Taptee, and on the other connect with the great Sautpoorah range, it being understood, however, that every eminence within long cannon shot is considerably lower than the commanding position of Asseerghur.

ATTACK OF ASSEERGHUR.

A large depôt of materials had been forming for some time previous to the siege, at a village between Brigadier-General Doveton's Head Quarters, and the advanced post under Lieut.-Colonel Pollock, about seven miles distant from the Fort. On the 17th of March, all attempts at an amicable adjustment having failed,

* Nullahs are water courses generally dry, except in the rainy season, when they present the appearance of mountain torrents, and sometimes even of rivers.

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the necessary orders were issued for the assault of the Pettah.

March 18th.

The ground having been previously reconnoitred, and the necessary arrangements made, the Pettah was taken at daybreak, by a simultaneous attack of two columns from the two Divisions, of Brigadier-General Doveton, and Brigadier-General Sir John Malcolm, which were encamped North and South of the Fortress. Brigadier-General Doveton's column, commanded by Colonel Fraser, and led by His Majesty's Royal Scots, entered the Pettah by the South-West gate, at the head of the Battukeerah Nullah. Brigadier-General Sir John Malcolm's column, entered by the high road from Boorgaum and Choulkan, through a gap in the hills, which cover the Pettah on the North-West. The enemy were taken by surprise, and made but little opposition, flying as the attacking party advanced, and our troops soon established themselves under cover of the houses, with a trifling loss, occasioned by the fire from the lower Fort, which opened as soon as the enemy's party had evacuated the Pettah. A battery (*a*) for 6 light howitzers, to keep down the enemy's fire, was completed during the day. The Engineer Depôt was established in the large bombproof Pagoda in the centre of the Pettah, and the troops occupied the street

in advance, which runs parallel to the Fort. The enemy's guns from the upper Fort, which were depressed to play on the Pettah, made good practice. During the night it was intended to construct the battery (*b*) for 6 eighteen-pounders, and 2 twelve-pounders, to breach the North-West angle of the lower Fort; to advance our posts to (*d*), to prevent the enemy's sallies, and to barricade those streets enfiladed by the enemy's fire. Owing, however, to the difficult nature of the soil, and a deficiency of materials, the battery, although commenced, was not continued. A secure post at (*d*) was completed, but in consequence of the flanking fire of the lower Fort, as it was impossible to make an approach to it, without going through the tedious operation of the double sap, it was determined always to withdraw the troops at daylight to (*c*), that post answering the same purpose during the day. The streets were barricaded, in the openings leading to the lower Fort, so as to afford a safe communication along the whole extent of the main street of the Pettah. The enemy fired during the night at the respective working parties, but without effect.

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March 19*th*.

The post at (*c*) was this morning completed. The enemy made a sally at sun-set, under cover of a heavy fire of matchlocks from the lower

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Fort, and drove in our troops from this post, which was the key to the whole position, and from which the advance of the enemy might have been effectually checked. They succeeded in burning some houses about the post at (*d*), which was apparently the object of their sally, as they immediately afterwards retired. The battery (*b*) was finished during the night, 400 yards from the North-West salient angle of the lower Fort; and another was commenced at (*e*), on the rising ground above the Pagoda, for eight mortars and howitzers. The ground on which the mortar battery was placed, was so hard, that the fascines (the only materials at hand) could not be picketed sufficiently strong. The revetment, therefore, gave way when nearly completed, and the work was left unfinished. The enemy did not fire this night, or attempt any annoyance, after being beat back in their sally.

March 20th.

The guns opened at daylight with great effect, immediately silencing the enemy's fire. By evening they had effected a practicable breach in the salient angle of the lower Fort. The mortar battery was this night completed with sand bags. Brigadier-General Sir John Malcolm's Division moved to a position North-West of the Fort, and that General's Head Quarters were established in the Lal Baugh.

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March 21*st*.

The enemy, expecting an assault, evacuated the lower Fort at four A. M., as was ascertained afterwards from a deserter. At seven A. M. the expense Magazine of battery (*b*), which was placed against the perpendicular bank of a deep ravine, 30 yards to the left, and in rear of the battery, exploded, from some unfortunate accident. It contained 130 barrels of powder. A Native Officer, and 34 rank and file, of the Bengal Native Infantry, were killed, and a Native Officer, and 65 rank and file, wounded by the explosion. The enemy immediately returned in great numbers to the lower Fort, and re-opened their guns. These were soon silenced, the parapets in front of them being completely destroyed. The mortar battery (*e*) opened at three P.M. This day orders were issued, for the defence of the Pettah being made over to Brigadier-General Sir John Malcolm's Division.

March 22*d*.

During the day, 130 shells were thrown into the Fort from battery (*e*), and at night two additional embrasures were prepared, each for a twelve-pounder, about 200 yards to the right and left of the battery (*b*); the one on the right, to destroy some defences of the lower Fort, from whence the troops in the Pettah were annoyed by the enemy's musketry; that on the

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left, to silence the large gun in the centre bastion of the North face of the upper Fort, which bore on the battery (*b*).

March 23d.

The Engineer Department moved, under the protection of the Bengal Brigade, to reconnoitre the East front of the Fort, and to decide on the ground of encampment for Brigadier-General Doveton's Division. The mortars in the Pettah continued playing upon the Fort. A 4½-inch howitzer was placed in the Pettah, at the top of the barricade, thrown across the principal street leading to the gateway of the lower Fort, to prevent the enemy's sorties in that direction.

March 24th.

The Engineer's reconnoissance being completed, the East front was decided to be the most favourable for the attack of the upper Fort, and the following is an extract from the Commanding Engineer's letter to Brigadier-General Doveton on the subject:

"The irregular nature of the ground, and the cover afforded by ravines, render extensive parallels unnecessary. A communication, however, should be opened from the Ram Baugh, to a ravine on the left of the attack, to enable the working parties to arrive under cover.

"As the approaches are to be carried up a ravine, exposed to a direct fire in front, and a flanking fire on each side, it becomes an object

of the first importance to knock off the defences of the flanks, and to prevent the enemy from rolling down stones. I recommend that these works should be destroyed from their foundation. CHAP. V. 1819.

"This, I conceive, can be effected by placing batteries on the prolongation of the flanks, in such manner as will enable us to breach the opposite, and enfilade the adjacent flank, from the same battery. The flanks being destroyed, and the defences of the curtain wall knocked off, the bottom of the revetment of the retaining and curtain walls is to be loosened, to enable the Miners to establish themselves; or should this be found impracticable, a breaching battery to be constructed, and the curtain wall laid open. I am of opinion, that by one or other of these means, we shall be enabled to form a practicable breach.

"The mortar batteries to be disposed as represented in the plan, and, if practicable, a brigade of six-pounders to be placed in battery on the detached hill opposite to the South-East angle, so as to command the high ground in rear of the front attacked.

"To distract the enemy's attention from the real point of attack, it is advisable, that the evening previous to constructing the batteries, possession should be taken of the lower works on the Pettah side, and a battery constructed to play upon the gateways.

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"By these means the Garrison will be deprived of all hopes of escape, and their uncertainty as to the true point of attack will weaken their efforts to oppose us.

"On the same principle, I recommend that the South-East face should be breached where the rock fails, with a view to such advantage being taken of it, as circumstances may require."

The point (*o*) on the North face was afterwards selected for the second breach, instead of the South-East angle, as here recommended. On the Pettah side a battery for 2 eight-inch howitzers, and 2 five-and-a-half-inch mortars, was erected, 350 yards to the left of the breaching battery (*b*). The enemy kept up a smart fire from the lower Fort during the night.

March 25th.

West Attack.—Employed in destroying the defences to the right and left of the breach, and bombarding the upper Fort.

March 26th.

West Attack.—Employed as yesterday. The Pioneers and public followers collecting materials for a new battery, for 1 eighteen and 1 twelve-pounder, intended to make a breach in the South face of the lower Fort. During these two days, Brigadier-General Doveton's Division was moving to occupy a position, for the projected operations on the East front.

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March 27th.

East Attack.—The Ram Baugh, a garden situated under the North-East angle of the upper Fort was occupied, and the Engineer's Depôt established there. The enemy brought a large gun on the North-East bastion to bear on this point, and destroyed a good many carriages, which were exposed for a short time to their fire. During the day a battery for 2 twelve-pounders was thrown up in front of the garden to silence this gun. A communication was commenced from the Depôt, in the direction of the proposed batteries.

West Attack.—The battery (*g*) for 1 eighteen and 1 twelve-pounder, for forming a breach on the South face of the lower Fort, was commenced, and the guns taken to the spot; but as the battery could not be completed before morning, they were placed under cover, 100 yards from the battery. 2 six-pounders were also carried upon elephants to the eminence, called the Mogul's Cap.

March 28th.

East Attack.—The communication to the proposed batteries Nos. 1 and 2 was completed, and a good road prepared for the guns up the side of the hill, through the old gateway already mentioned.

West Attack.—The breaching battery on the South side of the lower Fort, was com-

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March 29th.

East Attack.—Two batteries Nos. 1 and 2 were constructed during the night, to destroy the defences of the flanks, to the right and left of the curtain of the upper Fort, which it was intended to breach. No. 1 was made to contain 5 eighteen-pounders, and No. 2 four eighteen-pounders; the former was 380 yards from the North-East angle, and 530 from the opposite flank, which it was intended to destroy; the latter was 350 yards from the point of the Fort immediately above it, and 600 from the opposite flank.

West Attack.—The battery (*b*) re-commenced firing this morning to perfect the breach in the salient angle of the lower Fort, previous to the approaching assault. The guns in battery (*g*) opened at day light, and by evening effected a practicable breach. A four-and-a-half-inch howitzer was established on a height to the right of this battery, commanding the gateway of the upper Fort. The breaches in the lower Fort being reported practicable, orders were issued for the assault to take place the following morning.

March 30th.

East Attack.—Owing to the great labour

of carrying the guns up the heights, only 3 guns were got into battery No. 1, during the day, although a Regiment of Europeans, and one of Sepoys were employed as a working party, to drag them up; and were assisted by elephants. A battery for 2 heavy mortars, was made immediately on the left of No. 1.

West Attack.—The enemy evacuated Mallighur (the lower Fort) during the morning, and it was immediately occupied by our troops, who established themselves there with very trifling loss, as the enemy did not open from the guns of the upper Fort till the assailants were well under cover. Battery (*b*) was dismantled. During the night, all the mortars but one were taken from the Pettah, and placed under cover in the lower Fort.

March 31st.

East Attack.—During this day all the guns in Nos. 1 and 2 were placed in battery, and commenced firing on the defences of the flanks with good effect. A battery for 8 mortars and howitzers was thrown up in front, and to the right of the Ram Baugh, immediately under the hill. The enemy kept up a smart fire of matchlocks from the second Fort on the working party, but with little effect. A twelve-pounder was placed in battery on the right of No. 1, to keep down the matchlock fire from the North-East angle, which annoyed our people in No. 1 battery.

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West Attack.—Two eight-inch and 2 five-and-a-half-inch howitzers were placed in battery at (*f*) on the North side of the Fort, and 2 five-and-a-half-inch howitzers were placed on the Mogul's Cap.

April 1st.

East Attack.—The embrasures of battery No. 1 were repaired and widened. The eight-mortar battery opened this day. A battery for 10 mortars was thrown up to the left and in rear of No. 2. Batteries Nos. 1 and 2 continued firing to destroy their opposite flanks.

West Attack.—A battery (*h*) for 6 guns was constructed, about 600 yards from the upper Fort, to breach the wall of the middle or second Fort. An eighteen-pounder and a twelve-pounder were placed in the Pettah, to destroy the Western defences of the second Fort.

April 2nd.

East Attack.—A magazine was formed for the ten-mortar battery, and the whole of the mortars brought in. The other batteries continued firing with good effect.

West Attack.—The guns were got into the six-gun battery, and opened on the North-West curtain of the second Fort, at two o'clock P. M.

April 3rd.

The Saughur battering train and Bengal Miners arrived this day.

East Attack.—The ten-mortar battery opened this morning. A battery for 4 mortars was thrown up, about 100 yards in front, and to the right of No. 1, immediately under the first descent from the North-East angle.

West Attack.—The defences, to the right of the intended breach, were destroyed, but the fire on the corner bastion being too oblique, 2 eighteen-pounders were drawn out at night, to the right of the battery. A parapet was thrown up for a covering party, on the ridge (above battery (*h*), in front of the intended new battery. In consequence of a reward having been offered for shot, many were picked up and brought in by the camp followers.

April 4th.

East Attack.—The defences of the flanks being almost wholly destroyed, a breaching battery, No. 3, for 2 twenty-four-pounders and 4 eighteen-pounders, was commenced.; and as the ground would not allow sufficient space for more than two embrasures in a line, the guns were placed on three different small levels, one above the other, forming an inclined battery. 3 eighteen-pounders were placed in battery to the right of No. 1, to bear upon and destroy the North-East bastion, from whence the enemy greatly annoyed our troops.

West Attack.—Employed in making a mine under the rampart of the lower Fort, in

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order to open a road for the guns, to the new battery on the ridge (*k*). During the night 2 eighteen-pounders, intended for this battery, were dragged up from the Pettah, and lodged in the lower Fort.

April 5th.

East Attack.—Battery No. 3, 400 yards from the retaining wall, and 450 from the curtain, was completed this evening. A magazine was formed for it, and a road for the guns made. The front of No. 2 was thrown forward, to convert it into a breaching battery, to bear on the retaining wall No. 4. The masonry of the North-East angle was destroyed, and the large gun on the top of it, a one-hundred-and-forty-pounder, rolled from thence half way down the hill.

West Attack.—The breach in the second Fort being completed, a four gun breaching battery, for the upper Fort, was commenced, on the ridge in front of, and above battery (*h*). Two more eighteen-pounders were dragged up into the lower Fort during the night; the mine was sprung in the morning, and a good road opened by it, through the ramparts for the guns. A few good marksmen were pushed forward up the hill, from the lower Fort, to keep the enemy's matchlock men in check.

April 6th.

East Attack.—The 2 twenty-four-pounders

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and 4 eighteen-pounders were placed in battery in the course of the day, under a heavy fire of matchlocks, but with trifling loss, as the incessant fire from battery No. 1 kept the enemy under. The ten-mortar battery was repaired during the night, and an approach was opened from No. 1, in the direction of the breach.

West Attack.—The breaching battery was completed, a magazine made for it, and the guns got into battery.

April 7th.

Intelligence was this day obtained, from a man who had been allowed to visit the Lar, that he began to despond, and that his Garrison looked on further resistance as almost hopeless.

East Attack.—Breaching batteries (Nos. 3 and 4) opened on the retaining wall with great effect, and with the assistance of an oblique fire from No. 1, a practicable breach was nearly effected in the course of the day. The approach to the breach was continued.

West Attack.—The guns opened against the rampart of the upper Fort at ten A. M., with good effect. These operations created great alarm in the Garrison, and in the evening, two Vakeels came from Jeswunt Row Lar, with offers of surrender, but wishing to stipulate for the Garrison retaining their arms, they were immediately ordered back into the Fort.

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April 8th.

The breaching batteries re-opened at day light. About eleven o'clock A. M., orders were received from Brigadier General Doveton to cease firing, Jeswunt Row Lar having agreed to an unconditional surrender, on the part of himself and Garrison. The road to the breach on the East attack was continued during the night. The rock at the North-East angle was also reconnoitred, and it was ascertained, that there was a good path for troops, immediately under the rock, to assault the breach.

April 9th.

The Garrison marched out at sun-rise, and delivered up their arms. The Fort was occupied by British troops, and the union flag hoisted, under a royal salute from all the batteries.

ENGINEER DEPARTMENT.

Lieut. Coventry, *Madras Engineer, Commanding.*
„ Cheape, *Bengal Engineer.*
„ Purton, *Madras ditto.*
„ Irvine, *Bengal ditto.*
Ensign Lake, *Madras Engineer, Staff.*
„ Warlow, *Bengal ditto.*
35 European Sappers and Miners } Madras
48 Native Sappers and Miners } Establishment.
125 Native Bengal Miners.
1000 Pioneers (Bengal, Madras, and Bombay), and about the same number of Dooly Bearers and Lascars.

STORES, &c.

95,000 Sand Bags.

675 Gabions.

500 Fascines.

ARTILLERY.

Lieut.-Col. Crosdill, C. B. *Madras Artillery.*

Major Weldon, *Madras Artillery Commissary.*

Captain Poignand, *Brigade Major.*

1 Troop and a half of European Horse Artillery.

4 Companies of Foot Artillery.

1 Company of Native Golundauze.

ORDNANCE.

At the commencement of the Siege.

15 Eighteen-pounders, iron guns.
3 Twelve-pounders, ditto.
4 Twelve-pounders, brass.
1 Ten-inch Mortar.
5 Eight-inch Mortars.
1 Five-and-a-half-inch Mortar.
4 Eight-inch Howitzers.
2 Five-and-a-half-inch Howitzers, heavy.
5 Five-and-a-half-inch Howitzers, light.
2 Five-and-a-half-inch Howitzers, on beds.
4 Four-and-a-half-inch Howitzers, on beds.

Arrived during the Siege on the 3rd of April.

2 Twenty-four-pounders, iron.
4 Eighteen-pounders, ditto.
3 Ten-inch Mortars.
3 Eight-inch Mortars.
2 Five-and-a-half-inch Mortars.
2 Eight-inch Howitzers.

REFLECTIONS.

Owing to the failure of the rock in three dif-

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ferent places, Asseerghur may certainly be considered much weaker than the Fortresses of Khandesh described in the preceding Chapter, and it partakes largely in the defect of all Hill Fortresses, in being surrounded by ravines and broken ground, affording cover in various parts almost to the foot of the walls. Yet from its character and from local circumstances, it was expected to offer great resistance; and if the magnitude of the preparations against it be considered, it was certainly more respectably defended, than any of those which possessed greater advantages of position; but the Killedar, though he had received secret instructions to defend the place to the utmost, knew that his Master had openly given us orders of a different tendency; and doubtful perhaps, how far this duplicity would be avowed, and fearing that his personal safety might be compromised, he surrendered before he had cause for alarm. His feeling of doubt as to what course to pursue, was strongly expressed in a conversation he held with Sir John Malcolm, the day before the surrender of his Fortress. He told that General, "that Sindiah would be very angry with him;" and on being answered that, "he had just cause" he said, "Yes, he will reproach me much for having fought so badly with so fine a Fort, he will say I ought to have died." On General Malcolm

asking him, "If he had not an order from his Master to evacuate the Fort," he said "It might be the usage amongst Europeans, but with the Mahrattas, Forts like that, (pointing to Asseerghur) were not given up upon orders."

The vigour, with which both of the besiegers' attacks were pushed forward, and the manner in which their guns were carried to heights, which the Garrison had deemed inaccessible, must have made a great impression; and the besieged were further disheartened, by the death of their principal Jemidar of Artillery, who was killed on the 28th of March, while laying a gun in the North-East bastion. Had a practicable breach been effected in the casemated curtain on the East front, the storming party might possibly have gained it, by keeping close to the rock, after reaching the North-East salient angle of the Fort; and, in their progress, they would then have only been exposed to the opposite flank, the defences of which were completely destroyed, and the fire of it had once, even before that period, been kept under by the excellent practice of No. 1 battery, at the time that the guns were taken into the breaching battery. They would, however, have suffered from stones, which might have been thrown down on their heads from the rock, under which the path to the breach lay,

CHAP. V. 1819. and it cannot be supposed, that under any circumstances the attack of such a position, if well defended, could have been made without great loss.

If there be any part of the operations, to which the praise that they generally merit, cannot be given, it is the delay which took place in the assault of the lower Fort. It was a principal object, of course, to confine the Garrison within as narrow limits as possible, in order to give greater effect to our bombardment; but they were left in possession of the lower Fort, ten days after a practicable breach was made in it, without any apparent reason. Nor was this the only inconvenience, for the delay, which took place, afforded the enemy ample time for retrenching the breach, of which indeed they did not avail themselves; but an apprehension that they might have done so, caused the additional laborious attack on the South front, which would otherwise have been unnecessary.

An examination of the Fort, two years after it was besieged, has raised doubts in the Author's mind, whether a practicable breach could ever have been effected on the West side. The two subsequent Monsoons, which had washed away all the masonry in some of the battered parts of the Fortress, had made no impression on this: and by a reference to the section

through this part, (see Plate XVIII.), it will be seen, that except about 10 feet of rampart, and 6 of parapet, this wall, seventy feet high, is built against the rock; and the part immediately under it, is so steep, that if the rampart had been destroyed, the greater part of the rubbish would in all probability have rolled too far down the hill, to admit of a practicable ascent to the summit of the breach.

The third place, where the rock fails, which forms a part of the sally-port, near the South-East angle, appears to present a more assailable point, than either of the other two. It is not flanked, like the retaining and inner wall, on the East attack; nor, if we may judge by the sally-port being open to the top immediately behind it, is the rampart built against the rock, as at the part attacked on the North side. The breaching battery, in an attack on this point might be established at (A), within 350 yards of the point B, and the besiegers would have the benefit of a level space to traverse, between it and the breach. The outer work in front of this is only a breast wall, apparently made to hide the door of the sally-port, which here opens to the country, and indeed the only apparent objection to such an attack, is the great difficulty which would attend the carrying heavy guns up to that height. The senior En-

See Plate XX.

CHAP. V. 1819. gineer with the Division, on the first reconnoissance of the Fort, was of this opinion, and recommended it for the second attack; he would even have preferred it for the principal attack, but that a memoir, drawn up by an Officer of experience, who had been stationed in the Fortress while in our possession in 1802-3, described this as one of the strongest points, and particularly specified the ravine on the East front, as being the only part where there was any probability of attacking with effect.

Asseerghur has, since its capture, been ceded to the British Government; and its possession will perhaps enable us to restrain the excesses of the Bheel Tribes, who inhabit the neighbouring range of hills; and will, at all events, prevent it from becoming a strong hold of plunderers. It is a question however deserving consideration, how far these advantages will repay the expense of garrisoning it, and keeping its now decayed works in repair. Its central situation, between the Deckan and Malwa, seems to fit it admirably for a general Depôt, but this it can never become; for the access to the upper Fort is too difficult, for the constant passage up and down of heavy stores: and the lower Fort, which might be used for the purpose, is commanded on every side; besides which the sum it would require, to complete it as a place of strength for this purpose,

would go far towards building a new Fort, on better principles, on the plain.* CHAP. V. 1819.

ATTACK OF NOWA.

Description of the Fort of Nowa. PLATE XXI.

The Fort of Nowa which is situated about 24 miles North-East of Nandair, a City on the Godavery, is in shape an oblong square, of which the longest side is 46 yards, and the shortest 36. The body of the place is defended by a rampart 20 feet thick, and the flanking defences consist of a circular tower, about 30 feet in diameter, at each angle. The outworks are, a faussebray and ditch, running parallel to the body of the place, and a sloping glacis on the European system; but it is without a covered way, except round the North, and part of the East front, as far as the communication with the country. The interior area of the Fort is raised, so as to form a solid mound, to within about 6 feet of the terreplein of the rampart, the exterior height of which, including a parapet of 6 feet high, is nearly 30 feet.

The faussebray runs at about 29 feet distance from the body of the place, and consists of a casemated rampart, 20 feet thick, surmounted

* It would be unjust to close these reflections on the Siege of Asseerghur, without adverting to the exertions of the Artillery, both Officers and Men, throughout the siege. The former in many instances, particularly in battery No. 1, and the mortar battery on the North front, were without relief, and actually lived in these batteries, from the time they were first opened.

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by a parapet 5 feet high. At the angles, it follows the form of the circular towers of the body of the place, by which the ditch is much better defended, than is generally the case with Native Forts. The faussebray is further protected by traverses, which are placed in different parts, to prevent it from being enfiladed. There is no berm between the faussebray and the scarp of the ditch, and the height, from the top of its parapet to the bottom of the ditch, is 35 feet. The height of the counterscarp, from the bottom of the ditch to the crest of the glacis, is 25 feet; and as this latter work is raised 12 feet above the surrounding country, the whole depth of the excavation of the ditch is 13 feet; and it is 35 feet wide.

The principal gateway is on the East front, which is one of the longest, and is as usual very well flanked, by two circular projections, which spring from this front, in addition to the circular towers at the angle. The communication with the country is by means of a bridge, over the ditch, easily removeable; and a road across the glacis. There is also a sally-port on the West front, communicating with the country in the same manner. The environs are perfectly clear and level, to a considerable distance.

Nowa is altogether an excellent specimen of the strongest style of Native fortification, but it is too confined in size, and the works are on

too small a scale. The West, South, and part of the East fronts, are also weakened by being without a covered way, as the Garrison would be unable to make a sortie, against a lodgment on the glacis of either of these fronts, without exposure to the besieger's fire. The Garrison consisted of about 500 men. The besieging force, being His Highness the Nizam's Troops, disciplined by British Officers, was composed, at the commencement of the siege, as follows, but a part of it was detached during the operations. CHAP. V. 1819.

Troops present at the commencement of the Siege.

	European Officers.	Europeans Attached.	Native Officers & Privates.
Artillery	1	10	136
Infantry	12	5	2236
Reformed Horse	5	0	2006
Total	18	15	4378

January 7*th*, 1819.

The several corps forming this detachment, under the command of Major Pitman, assembled at Tomsa, 3 miles South-East of Nowa. In the afternoon, the Commanding Officer proceeded to reconnoitre the Fort, from a hill 900 yards South of it.

January 8*th*.

The detachment took up a position, near Nowa; the Infantry encamping at the distance of 1 mile to the North-East of the Fort, and the Reformed Horse at about the same distance

CHAP. V. 1819. to the North, and West of it. At mid-day a Risalah arrived under Lieutenant Sutherland, and encamped on the left of the Infantry. Small parties were posted from this Risalah on the South and South-West, so as to communicate with those previously stationed on our right. The enemy during the day threw a few shot into our camp, but without doing any injury. The Pioneers were employed throughout the day in cutting brushwood.

January 9th.

A working party of 150 men from the line, with the Pioneers and Golandauze, were employed in making fascines and gabions.

January 10th.

It having been resolved that the North side of the Fort should be attacked, as it presented a small front, and was understood to be weaker than the other sides, the fascines and platforms were brought to a place 700 yards distant from it; and a working party of 80 men were employed in constructing battery (No. 1) for 4 mortars. The enemy did not appear to have discovered us (owing to the jungle) till towards evening, when part of the Garrison advanced from the Fort, opening a sharp fire upon our people. They were immediately driven in, by a party from the Russell Brigade, under Captain Hare. This battery was completed during the night, and another battery (No. 2), 100

yards in advance, formed with fascines and sand bags, was ready to open at day break. CHAP. V. 1819.

January 11th.

Both batteries opened at daylight. 2 six-pounders were employed in keeping down the enemy's fire, and the eighteen-pounder being directed against the left bastion of the face attacked, brought down a considerable portion of the wall. Throughout the day, the enemy kept up a brisk fire from matchlocks, wall pieces, and a gun placed in the work before the gate. At sun-set posts of Infantry (2 and 6) were established to the right and left of the battery, at the distance of about 500 yards. At the latter post, battery (No. 3), was constructed in advance, at the distance of 430 yards from the gateway. Sentries were placed from both positions, so as to communicate with those of the batteries. The Risalahs in a similar manner, threw out their vedettes, and supported them with strong bodies of horse, at regular intervals, in order to prevent the expected attempt of the Garrison to escape. The mortars were removed during the night, to the advanced battery.

January 12th.

The mortars played occasionally during the day, with tolerable accuracy. Men were employed in cutting brushwood. During the night, a cavalier (*c*) was constructed, 100 yards in

CHAP. V. 1819. advance, and to the right of battery (No. 3), and a trench of communication was established between them. This was extended considerably to the rear, for the protection of the troops. The enemy's horse attempted to pass out, but were driven back by Captain Hollis's vedettes.

January 13th.

Men were employed in cutting brushwood. The mortars played as yesterday, and a sharp fire of matchlocks and musketry was kept up between the Garrison and our Infantry at the cavalier. A little after dark, a party of the enemy attempted to pass the post (*a*), killing the advanced sentry; but a fire being opened upon them, they retreated into the Fort. The working party was employed in improving the communications.

January 14th.

A few shells were thrown, and some grape. The enemy remained tolerably quiet, their gun being silenced. At night, battery (No. 4) for 2 eighteen-pounders was constructed, 330 yards in advance, and a communication was made, between it and the cavalier.

January 15th.

Batteries (1 and 2) were dismantled. Our Artillery began to knock off the defences of the front attacked. The enemy being very troublesome, a few shells were thrown with considerable effect. Working parties were

mployed in cutting brushwood. The trench of communication between the battery and cavalier was rendered more secure, and another was run out on the right of the battery, near to the post (*a*). A few shells were thrown during the night.

January 16*th*.

The eighteen-pounders fired as yesterday. 2 mortars and 1 howitzer were removed to battery (No. 3), from whence they played occasionally during the night. Sixty yards of sap were finished, commencing at (*d*), and being directed so as to clear the works on the right of the front attacked. A communication between the sap and battery was completed. The enemy remained very quiet.

January 17*th*.

The sap was widened and deepened. At night 40 yards of a zig-zag, to the right, were finished, and a small place of arms was established to the right and left, at the head of the sap. Some shells were thrown during the night.

January 18*th*.

Yesterday's work was widened and deepened. During the night 30 yards were run out in the same direction. The besieged attempted no annoyance, seeming not to understand, or to care for our operations. At day-break a sharp fire was opened upon the head of the sap, which did no injury.

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January 19th.

Yesterday's sap was widened and deepened. During the night 30 yards were run out in the same direction, and a return was made. The Garrison kept blue-lights burning nearly the whole night, and occasionally threw stones from a mortar. About ten o'clock an attempt was made by the Rebel Chief Howajee, with a party of horse, to surprise our camp from the rear, but the sentries being on the alert, the piquets soon turned out, and after a little firing, he retired; and was pursued some miles by Lieutenant Sutherland, and a party of Reformed Horse, but owing to the darkness of the night, he effected a safe retreat. Working parties were employed during the day in making fascines.

January 20th.

The sap was widened and deepened. The enemy had brought two pieces to bear upon it, but a few shots from our battery soon silenced them. A continued shower of matchlock balls annoyed us the whole day, but the trench being secure, little harm was done. Working parties were employed in making fascines. At night the sap was carried 37 yards to the left. A party from the Garrison made a sortie upon the head of it, driving in the working party, and destroying a little of our work; but the guard of the trenches obliged them to retire. The

fire from the Garrison was exceedingly hot, and some loss was sustained: cover was however obtained, in spite of all their efforts. CHAP. V. 1819.

January 21st.

The sap was widened and deepened; during the night it was turned to the right, and extended 20 yards. A place of arms was made at the head of it.

January 22nd.

At nine A. M. the enemy made a sortie upon the sap, which threw our working parties into great confusion, and prevented the guard of the trenches from beating them back, so soon as they would otherwise have done. We sustained some loss. The work of yesterday was widened and deepened, and during the night the sap was extended 15 yards in the same direction.

January 23rd.

Yesterday's work was widened and deepened, and the sap was advanced 10 yards. This day a European, attached to the Engineer, was mortally wounded at the head of the sap. During the night, the work was advanced to the crest of the glacis.

January 24th.

Yesterday's work was rendered more secure, and returns were made to the right and left. At four o'clock P. M., the Garrison sent a messenger to the Commanding Officer: and by mu-

CHAP. V. 1819. tual agreement all firing ceased till his return. Our works went on during the night, and a lodgment on the glacis was completed. A six-pounder was brought up and kept in readiness.

January 25th.

The enemy having refused to accede to the terms proposed, the truce was at an end: great part of the glacis within the lodgment was cut away, with a view to the commencement of a mine. Towards evening, the shaft was begun, and during the night was sunk 12 feet. The soil being stiff clay, was found to stand without support. A working party was employed in making fascines.

January 26th.

The shaft was sunk 14 feet deeper, so as to make its depth 26 feet from the crest of the glacis. A gallery was commenced to the left, the object being, to blow in the counterscarp, opposite to the left tower of the front attacked.

January 27th.

A mortar was got into the lodgment, and proved of great service. The gallery at midday measured 15 feet, and a branch was run out to the right, to the distance of 10 feet from the shaft. Working parties were employed in making fascines.

January 28th.

The gallery measured 28 feet, and a return

of 8 feet was made to the right. The branch had been extended as far as the ditch, for the purpose of obtaining a view of it, and also to ventilate the mine. The gallery proved to be on the same level with the bottom of the ditch. A small branch to the left, was begun from the center of the great branch, in order to form a chamber, and was carried 6 feet, after which a return was made to the right. The enemy annoyed us with stones. CHAP. V. 1819.

January 29th.

Both chambers being completed, were loaded; the one on the left with 900, and that on the right with 315 lbs. of gunpowder. The hose was laid, and part of the mine tamped.

January 30th.

At day break the batteries opened, with 2 eighteen-pounders, 1 six-pounder, and 2 mortars; the mortars and the six-pounder being placed in the lodgment. By two o'clock the remainder of the mine was tamped. In the evening the breaches assumed a very respectable appearance. Shells and grape were thrown into them, during the night.

January 31st.

The firing from our batteries continued as yesterday. At eight A. M. the Garrison sent two men to negotiate. They were desired to inform the Commandant, that he must surrender at discretion. They returned to the Fort,

CHAP. V. 1819. and no answer was received. At ten, the breaches having been reported practicable, orders were issued for the assault.

At 20 minutes before two A. M., the mine was sprung. The explosion was very considerable, making an excellent descent into the ditch, and filling up part of it (See the Section C D in Plate XXI). A cloud of dust darkened the air for four or five minutes, under cover of which the ladders were planted, and the troops ascended the breach before the Garrison had recovered from their consternation. Ten minutes after the explosion, the inner Fort was carried, and in the course of an hour, the whole of the enemy's works were in our possession. Our loss in the storm was small, being 4 killed and 71 wounded.

The loss during the whole siege was 24 killed and 180 wounded.

ENGINEER DEPARTMENT.

The only Engineer Officer was Ensign Oliphant, of the Madras Engineers, who had three Europeans attached to him, one of whom was killed and another wounded, during the siege.

There were also about 70 Pioneers more immediately under his orders, from whom less assistance was derived than could have been wished, owing to their previous ignorance of the requisite duties. Out of the number there

were, however, about 20, who had some little knowledge of mining.

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STORES, &c.

120 Intrenching Tools.
1350 Sand Bags.

AMMUNITION EXPENDED.

Eight-inch shells		213
Five-and-a-half ditto		1040
Round Shot.	Eighteen-pounder	1380
	Six-pounder	462
Grape Shot.	Eighteen-pounder	2
	Six-pounder	67

REFLECTIONS.

The Fort of Nowa, though it can hardly be called a formidable place of defence, owing to the small extent of its fronts, and to two faces being altogether without a covered way, is, perhaps, as strong as a square Fort of this size could be made, under any system of fortification; and the arrangement of the traverses, the glacis, and the clear esplanade around it, seem to warrant the conclusion, drawn by the Engineer who conducted the siege, that others than Natives must have assisted in building it. Fortunately the soil was favourable for the operations, which the Engineer had the boldness, with such means as he possessed, to conceive, and to carry into execution. It must be confessed, that few would have ventured, with only 70 men as a working party, of whom but a small proportion knew any thing of the

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requisite duties, to attempt to crown the glacis, with a sap; but no operation, less efficient than this, would, with an enemy so resolute as the Garrison of Nowa proved themselves to be, have effected the reduction of the Fort; and although his progress was necessarily slow, the event fully justified the daring mode of proceeding, adopted by the Engineer. The siege of Nowa indeed deserves, in its general features, to be held forth as a model of universal practice, and the objection which has been hitherto raised to operations of this kind, that they consume more time, than can commonly be spared for sieges in India,* is proved to be altogether futile.

The first ground was broken on the 10th, and the place was stormed on the 31st, and this period might have been much shortened, if the Engineer had had the assistance of an efficient Department, and if the parallel, which appears to have been much more extensive than necessary, before a Fort, of which the front attacked was only thirty-six yards, had been contracted; but from the time that the first sap commenced, till the counterscarp was

* The siege of Tanjore by General Smith, A.D. 1773, which was conducted by Colonel Ross, then Chief Engineer, at which still more extensive parallels and approaches were carried on, and where the ditch was crossed by sap, was brought to a close in twenty-five days.

blown in, was only thirteen days under all the disadvantages of working with men, who had never before witnessed operations of the kind.

The great extent of the parallel, which was from right to left no less than 1000 yards, appears the only objection, which can be offered; if it had been reduced to half that extent, from (*d*), to mid-way between battery No. 4, and the cavalier (*c*), there would have been ample space to embrace the whole front attacked, and to give cover to the whole guard of the trenches; and an approach of 100 yards from behind No. 4, would have placed the troops in their road to the trenches, under cover from the musketry of the Garrison. By this reduction, three or four days labour would have been saved.

The South front, which is of as small extent, as the one attacked, is weaker, in being without a covered way, and if the attack had been directed against this front, the enemy would not have been able to sally on our lodgments, which, as it was, they twice effected. But the information, obtained on these points from Natives, is always so imperfect, that the Engineer could not, without actual examination, which was of course impossible, have ascertained that this defect existed; and perhaps the ground was so much more favourable for the

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approaches on the North front, as to counterbalance it, even if it had been known.

Nothing appears to have been overlooked, that could insure a successful result to the siege. The breach was not formed, till the mine that was to open a road to it, was ready for explosion; and such was the consternation of the Garrison at this novel method of attack, that no resistance was offered by them, whilst our men were placing the ladders, which were required to mount the breach of the faussebray; although they had evidently determined to resist to the last, for many of our shells which had not exploded, and a quantity of 18lb. shot were found at the top of the breach, ready to hurl on the assailants when they should attempt to mount it. Indeed any further praise of these operations would be superfluous. The complete success which attended them, resulting from no accident, and against an enemy as resolute to the last, as any we have encountered in India, forms in itself the highest encomium that could be passed.

ATTACK OF COPAL DROOG.

Description of Copal Droog. PLATE XXII.

The works of Copal Droog are of extraordinary magnitude and strength, and (as will appear by the plan) very complicated. The hill, which forms the upper Fort, is about 600 feet high above the plain, and is totally inaccessible on three sides. The fourth, or Eastern

side, is encircled with walls to the very base, where a strong rampart terminates the hill fortifications; below which there are, on this side, two additional inclosures, each consisting of a very respectable rampart with towers. The inner line of defence of these two embraces the hill in the form of an irregular semicircle, and is built of stone. The outer one is of mud, and surrounds the former every where excepting at the East end, where the two ramparts are united. In approaching the lower Forts, cover is every where afforded, to within 350 yards of the walls, by the Pettah on one side, and by a range of rocks on the other. The main strength of the place is at the point D, on the hill, where the flight of steps, leading to the upper Fort, turns to the left, behind a rock; and being completely hid from breaching guns, the progress of an enemy is checked by a gate, which presents itself, and where the assailants would be exposed on both sides to musketry, and to stones thrown from above.

May 8th, 1819.

Part of Brigadier-General Pritzler's Division, consisting of the following corps and detachments, encamped before Copal Droog this morning. The Brigadier-General commanded in person. Lieut.-Colonel Fraser's brigade was employed.

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CORPS, &c.	No. of Companies or Squadrons.	No. of Men.
Capt. Tew, H. M. Flank Battalion - - - -	6	480
Major Knowles, C. B. Rifle Corps - - - -	10	630
Capt. Hall, 2d Batt. 4th Regt. Native Infantry	5	346
Capt. Green, 2d Batt. 12th ditto - - - - - - -	10	683
Capt. Mills, H. M. 22d Dragoons - - - - -	2	179
Capt. Kemble, 1st. Light Cavalry - - - - -	2	370
Major Cleaveland, Artillery - - - - - - -	2	74
Gun Lascars -		97
Capt. Smithwaite, Pioneers - - - - - - - - -	3	200
		3,059

A reconnoitring party proceeded at 9 A.M. to examine the works, and it was determined that the whole column should attack the out-posts of the enemy in the evening, and take possession of the Pettah, with a view to erecting batteries during the night.

At 4 o'clock P.M. the troops off duty moved towards the Pettah, but being met by a brother of the Rajah, who came out with his retinue to deliver up the place, they halted; and four companies were detached to take possession of the gateways, but on approaching the walls they were warned off, and ultimately refused admittance. Whilst this parley was going on, the column was ordered back to camp, excepting about 300 men, under the command of Lieut.-Colonel Fraser, who remained to support the four companies in case of necessity. At the close of the evening Lieut.-Colonel Fraser

withdrew the four companies, and took up a position in the Pettah, where he was reinforced by the galloper guns of the 22d Dragoons. CHAP. V. 1819.

During the night a mortar battery was prepared at *y* (see Plate XXII.); and nine mortars opened their fire from it at midnight upon the lower works. The gallopers opened at the same time with shrapnels, from the position in the Pettah.

May the 9th.

The two gallopers were removed from the Pettah, and, together with a howitzer, were placed in position on the hill post (*z*) to the right of the mortar battery, where they were of considerable use, in silencing the fire from the upper works. 2 brass twelve-pounders were placed in the Pettah, in lieu of the gallopers, and during the night a battery was constructed for 2 eighteen-pounders at (*x*) to breach the North curtain of the lower Fort.

May the 10th.

The fire from the breaching battery, and the whole of the other posts, commenced at sun-rise, and continued with little intermission throughout the day.

During the night the breaching battery was enlarged for 2 more eighteen-pounders.

May 11th.

The 4 guns opened at daylight, and with so much effect, that the breach was reported prac-

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ticable at noon. Arrangements were consequently made for the storming of the lower Forts at daybreak next morning; and the brass twelve-pounders were removed, and, together with a howitzer, were placed a little in advance of the mortar battery, at (*w*), for the purpose of covering the attack.

These arrangements were rendered unnecessary, in consequence of the surrender of the lower Forts, which took place in the evening. The Garrison, to the amount of 1400 men, marched out, and the place was taken possession of by our troops. Overtures were at the same time made for delivering up the upper Fort.

May 12*th*.

Hostilities ceased in consequence of the negotiations which were pending. These, however, on the part of the Rajah, seemed to be entered into for the sole purpose of gaining time. The whole day was wasted without coming to any decision, and a farther period, till 9 o'clock of the morning of the 13th, was allowed, to bring them to a conclusion. Advantage was taken of this interval, to examine the nature of the remaining defences.

May 13*th*.

The period fixed upon having arrived, and it appearing that no reliance could be placed upon the Rajah's professions and promises,

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the following plan of attack was decided upon. Two columns, of 4 companies each, to escalade the walls at the points G and H; and having gained admittance, to support each other. A galloper gun to accompany the left attack, for the purpose of blowing open the gate B. Advantage to be taken of the confusion of the enemy, to follow them to the summit of the hill, if possible. A reserve of 3 companies to advance from the mortar battery, to reinforce the column which should first establish a footing.

At twelve o'clock precisely, both columns advanced to the assault. The right under Captain Cuppage, of His Majesty's 53rd Regiment; the left under Captain Tew, of His Majesty's 34th Regiment; the whole commanded by Lieutenant-Colonel Fraser, of the 12th Native Infantry.

Both escalades succeeded, and the gateway was blown open at the same instant. The troops rushed in, and effected a junction at the gateway C, which afforded cover to a considerable number of men. At this point, they were checked by a tremendous shower of stones, which was hurled from the rocks above, and occasioned a number of casualties. Amongst the sufferers was Lieutenant Elliott of the Rifle Corps, a very promising young Officer, who had only joined his Regiment the preceding day, and anxious to distinguish himself, had volun-

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teered to accompany the strong party. After a short pause, a party rushed forward, led by Lieutenant Silver of the 53rd Regiment, which after a gallant contest, succeeded in forcing the gateway D, driving the defenders before them, who retreated to the right and left, as our men entered. The main body of the assailants moved to the right, and immediately carried the line of works extending in that direction. A small party also went to the left, but being much exposed, and their ammunition expended, were obliged to retreat. A second rush was however made in this direction, and the enemy intimidated by the perseverance and gallantry of the attack, called for quarter, which was granted; and the Garrison, to the amount of 500 men, were marched out prisoners of war.

Our loss in the siege and assault amounted to 4 Officers and 57 men killed and wounded.

ENGINEER DEPARTMENT.

Lieutenant Grant, *Commanding*.
„ Oliphant.

ORDNANCE.

4 Iron eighteen-pounders.
2 Iron twelve-pounders.
2 Brass ditto.
8 Eight-inch Mortars.
1 Five-and-a-quarter-inch Mortar.
2 Howitzers.

The assaulting columns were on this occasion, as on every former one during the cam-

paign, led by Officers of Engineers, who well supported the reputation of their Corps. The right point of escalade was 20 feet high and the left 19, the ladders were 25 feet long, and were found to be just sufficient. They were carried by Pioneers, and planted by the Engineer Officers, assisted by Volunteer Artillery men. Ropes were attached to the ladders near the top to secure them when up, and bamboo poles with iron forks were used in rearing them.

No particular notice has been taken of the strength of working parties, as no fighting men were required for that purpose. The cover near the Fort was so excellent, that nothing remained but to throw up a parapet, at any point required, for which the Pioneers, Dooly Bearers, and Bamboo Coolies, were found to be quite sufficient. The breaching battery was sunk (in a ploughed field) in four hours, and the other batteries constructed with equal facility. The gate B required three discharges from the galloper to blow it open, the first a blank cartridge, the second a round shot, and the third a double shot: the escalading party were just over the wall when the gate opened.

CHAPTER VI.

EXTRAORDINARY STRENGTH OF THE NATIVE HILL FORTS, CONTRASTED WITH THE WEAKNESS OF THE OTHER FORTRESSES OF INDIA.—THE CAUSES OF OUR NUMEROUS FAILURES, IN ATTACKING THE LATTER, INVESTIGATED.—THE SYSTEM OF IRREGULAR SIEGES, AND THE TOO FREQUENT USE OF RASH ASSAULTS, CONDEMNED.—IMPROVEMENTS, THAT OUGHT TO BE ADOPTED, TO INSURE SUCCESS, IN THE EVENT OF FUTURE SIEGES IN INDIA.

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THE foregoing journals present a curious anomaly. We have taken apparently without difficulty the formidable Hill Forts of India, Fortresses formed by nature, as if in proof of her superiority over the most laboured works of science; whilst on the other hand, places on the plain, that would not delay an European Army, fully equipped for more than a week, have not only resisted our efforts with success; but, in the opinion of the mass of mankind, who seldom look deeper than the surface, have even brought discredit on our military character. According to the plan laid down in the introductory Chapter, where the causes, which have led to such discordant results, have already been partially noticed, it now only remains to inquire more minutely into this question, and to consider the best mode of avoiding similar disasters, in the event of future wars in the East.

In regard to the Hill Forts of India, I shall again most pointedly repeat the opinion expressed or implied in former parts of this work, that many of them, if properly defended, may be considered absolutely impregnable. Those vast precipices of lofty granite may equally bid defiance to the battering Gun, and to the Mine, the latter of which, Vauban the great master of the Art of Sieges, recommends as the most powerful agent for the attack of mountain Fortresses. And in fact there seems no certain mode of reducing them, if vigorously defended, but the tedious operation of strict blockade. Having given such a character of these Fortresses, it may be asked, from what cause or by what means we came to reduce the whole of them with such facility, in the late war?

The reader will have observed, that the mode of proceeding always adopted, was to occupy without delay one or more positions as close to the rock as possible; and to carry up field pieces to the spot by hand. This plan of operation was purposely recommended by the enterprising and skilful Engineer employed with Lieutenant-Colonel M'Dowall's Division, in the hope of intimidating the defenders, at the same time that he officially stated his opinion, that if this attempt at working upon their minds by a show of vigour should fail, the cap-

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ture of these strong holds was absolutely impossible.* Without, however, supposing any extraordinary degree of pusillanimity on the part of the enemy, at the period alluded to, another cause must have had an equal or perhaps a greater share, in leading to the almost immediate surrender of these formidable Fortresses. The Commanders and their Garrisons were perfectly aware, that the Peishwah had been totally defeated, and that the state of his affairs was absolutely hopeless. They could therefore entertain no rational prospect of retrieving their Master's fortunes, by a determined opposition to the British arms, which eventually might be injurious or even ruinous to themselves. Under such impressions, it is more than probable, that they only waited for the opening of the first battery, to afford them a decent pretext for surrendering.†

* See the Report of the Commanding Engineer on the Fortress of Rajdeir (Page 92).

† In former wars we have had similar instances of success against such places, especially in the war of 1791 against the Mahomedan Dynasty of Mysore, when three of the strongest Hill Forts of that Country, Nundydroog, Severndroog, and Ootradroog, were successively carried, the two former by storm, the latter by escalade. Although these places were inferior in strength to those of the Deckan, and had their ramparts breached by guns, conveyed to positions deemed inaccessible; yet, even under these circumstances, our successes at that period excited the utmost astonishment, and were attributed to the effect produced on the Gar-

Having thus attempted to account for the poor resistance made by the Hill Forts of Khandesh, I shall not presume to lay down any fixed rules for the attack of such Fortresses in future; as it must be evident, from the description of them, that no certain result can be calculated upon, under all circumstances. A great deal of cover is usually found near them, owing to the inequalities of the ground;* but the little depth of soil is a great impediment to the construction of batteries, and trenches, especially as the parapets of these works require an extraordinary height to protect them from such very commanding Fortresses.† We

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risons by the recent fall of Bangalore. On the other hand, it is proper to notice the repulses we received in the two successive attacks of Kistnagherry, in 1789 and 1791, which in both instances, were effected by simply rolling down stones and large masses of granite on the assailants.

* It frequently occurs that some of the lower lines of works of the Indian Hill Forts afford cover to the storming party, even as far as the very foot of the breach, as was the case at Dindigul in 1791, and at Vellore when besieged by Hyder's Troops, in 1781. At the last mentioned place, the besiegers, having been repulsed in their attempt to storm the breach, began to fill up the ditch with fascines, and as it was not flanked, the Garrison were unable to impede them in this operation, until Lieutenant Parr, the acting Engineer, descended with a party of men by the ladders, which had been placed by the assailants, and drove them out of the ditch by the bayonet.

† When the Artillery of the Garrison can be kept under, the old expedient, described in the common elementary

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did not however suffer much from this circumstance in the late war, as our batteries were placed out of musket shot; and the enemy's fire of Artillery was slow, and ill directed.

After admitting the extraordinary strength of the Hill Forts of India, I shall observe, that the Fortresses on the plain may be pronounced exceedingly weak, and that the result of our operations against them ought to be certain, beyond every other kind of warfare. In Europe, so much has the science of attack and defence been studied, and to such efficiency has the Engineer Department in most services been brought, that even the number of days to be consumed in a siege may be calculated, with some degree of accuracy, and a failure against the strongest places, however bravely defended, seldom occurs, except from uncontrolable causes. In India, the duration of a siege depends on the bravery displayed by the Garrison; and although instances of Native Forts being resolutely defended, are comparatively rare; yet, when so defended, it is impossible to say how long we may be detained, or how many reverses we may experience. Whence

writers on the attack of Fortified Places, of Chandeliers, or wooden frames filled with fascines, may be used to advantage, as was done by Hyder's French Engineers at the Siege of Vellore, in 1781, who, by means of these, carried part of their approaches to within 20 yards of the walls.

then do these different results arise? Is it, because the Forts in India are stronger? On the contrary, both from the general description of them, which was given in the Introductory Chapter, and from the special descriptions of those besieged in the late war, as contained in the body of this Work, it will be evident, that they are much weaker than those of Europe. Is it, because the Garrisons are composed of braver or better men than ourselves? Undoubtedly not, for they have never been able to resist us in the open field. It must therefore be, that greater skill and superior means have been directed against European Fortresses. Now, although we are not disposed to admit that the Company's Engineers of the present day, are deficient in that degree of science, which is necessary for conducting such operations,* they

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* In the early wars, which took place between the English and French on the coast of Coromandel, it must be admitted that the superiority in the method of conducting sieges, evidently lay with the latter, for although no details are given, we read constantly of their having carried on their approaches in a respectable manner. In the English attacks on fortified places, there was, on the contrary, a marked want of science, with the exception of one or two rare instances, creditable to men of superior talent. At the sieges of Ariancopang and Pondicherry, attacked by us, in 1748, Orme expressly ascribes the failure that took place, to the incapacity of the Engineers, who, according to his account, were utterly unqualified for the enterprize.

CHAP. VI. 1819. have not yet been provided with the proper means for employing that science to advantage; and as an obvious comparison, it may be asked of what use is the skill of the Artificer, if he cannot procure tools to work with?

Owing to the lamentable want of means alluded to, instead of working up to the breach by sap, with comparative safety to our own troops, and with a well grounded confidence of overcoming every intervening obstacle, by a method leading to certain success; we have generally, in our sieges, effected breaches in the body of the place by means of distant batteries, and marched to the assault, over the intermediate space, like Mahommedan Fatalists, apparently without considering, or at all events leaving to providence, how the ditches and untouched walls between the outer works and the breach were to be passed. Hence, a vicious system has been adopted, uncertain and hazardous in the extreme; and from the want of all experience of a more perfect mode, the great body, composing the Military Public in India, have scarcely even contemplated the propriety of resorting to a more judicious mode of attack.

In fact, on many occasions, it has been usual to attack the enemy's Fortresses by sudden assault, in preference to going through the ceremony of opening even a common battery.

Nay, to such a degree has this rage for precipitate measures been carried, that, the only former Author, who writes professedly on the Attack of Indian Fortresses, has recommended the method of blowing open the gates of a large well garrisoned Fortress, with a gun in broad day light, in preference to besieging it.* He mentions some instances, in which this extraordinary mode of attack has succeeded, and I am aware that many similar ones might be added; but we shall find in the numerous instances, in which it has failed, abundant reason for not adopting too hastily, as a general rule, a method, the success of which, I do not scruple to say, depends entirely upon the Garrison being devoid of common resolution, and of common sense.† CHAP. VI. 1819.

It would swell the present Volume too much, to enumerate all the varieties of fortune, by

* By way of example, he states his opinion, that this mode of attack would have insured the capture of Bhurtpoor.

† The Natives often build up the gateway, which renders the blowing it open with a gun impracticable. This had been partially done at Cuttack, when attacked by us in 1803; when the whole of the gateway was built up, with the exception of the wicket. Ten or eleven shots were fired, before that was blown open, after which the assailants crept in, one man at a time, and succeeded in taking the place, having previously sustained a considerable loss by the enemy's fire, whilst their progress was stopped at the wicket. This attack was made at noon-day.

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which those headstrong assaults have been attended; but the attempt to blow open the gates of the fortified Pagoda of Chillambaram, in 1781, affords too striking an example, to be passed over in silence, of the ease with which such attempts may be repulsed, by a little judgement on the part of the besieged. The attack on this post was made at night, with four battalions of Sepoys, 2 twelve-pounders, 4 six-pounders, and 2 howitzers, under the personal command of Sir Eyre Coote. The Pettah and the gate of a second inclosure, which surrounded the place, at the distance of 100 yards, were immediately carried. After this, it was necessary to force open three more gates, strengthened by intermediate traverses, before the body of the place could be entered. The troops succeeded in breaking through the two first of these, but the space between the second and the third (or inner) gate, which was commanded by the ramparts of the body of the place, was filled with thatched huts; and a few lighted portfires dropped on these from above, assisted by bundles of straw, and jars of oil, thrown down to increase the conflagration, formed a barrier, which it was found impossible to pass; so that the assailants were obliged to retreat with great loss, leaving a gun behind them.

It is to be observed, that although the Author

alluded to describes the gateway as the weakest point in the Native Fortresses of Hindostan, this is far from being the case, on the Western side of India, when the gates are always very intricate and numerous, and they are also (at least the interior ones) the only parts, where any attention appears to be paid to a flanking defence; and if occasional success in any method of attack be sufficient to recommend it for general adoption, the Native way of breaking open a gate with an Elephant, which was practised by ourselves in two instances in the late war;* possesses equal claims to such distinction.

An escalade is equally objectionable as a general system, but as a *coup de main*, is more likely to succeed than the former method; for an enemy may be taken by surprise, and his attention distracted from the real point of attack; which is impossible, when a gate is to be blown open. The noise and preparations necessary to bring up guns, at once prevent

* In 1818, at Compta, a place in the Nagpoor Rajah's dominions, where it succeeded, and at Lariga, a Fort, in the same Country, and attacked about the same time, where it failed. In 1751, Arcot, when defended by the immortal Clive, was attacked in this way by Chunda Saib, who sent forward elephants, with plates of iron hung on their foreheads to break down the gates; and here the natural consequence of such an attempt ensued, for the animals being wounded, turned round, and trampled on their own party.

CHAP. VI. 1819. surprise, and as there is seldom more than one entrance to a Fort; to that point, the attention of the Garrison must necessarily be directed. An attempt at surprise, however, which is essential to the success of an escalade, or of any other *coup de main* may be frustrated by the slightest accident. The escalade of Madura, in 1757, although admirably planned, was repulsed through the barking of a dog, which alarmed the garrison.*

* If the defenders are aware of the point, which is to be assailed, success can hardly be expected. The attack on Bobilee by the French, under Monsieur Bussy, in 1757, whilst it proves this, exhibits the Native Indian character in such an extraordinary light, that I shall, perhaps, be pardoned for introducing it. This was a petty square Fort, with a round tower at each angle, having its walls only 20 feet high, with a rampart of 12 feet, and was garrisoned by 250 Polygars. The French attacked it with a force of 750 Europeans, and 1100 Peons, divided it into four bodies, with a field-piece attached to each. They commenced their operations at daybreak. By nine o'clock, the field-pieces had battered the parapet, which was only 3 feet thick, sufficiently to admit of the scaling ladders being applied. After vainly attempting for an hour to mount by them, the attack ceased till the breaches of the parapet were increased. Another attempt was then made, but proved as fruitless as the first; and at two o'clock, not a man having been able to mount the rampart, a second cessation was ordered. At this period, the Polygar Chieftain despairing of success, summoned his brave followers, and represented to them the only alternative, by which their wives and families could be saved from dishonour. This cruel measure was instantly acted

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If, from want of time for carrying on regular operations, or from other circumstances, a *coup de main* be considered necessary, and such I am aware will often be the case; mining, where there is only one line of works, and those of mud, appears to me preferable to any of the methods which have been in general use; as being equally expeditious, more certain, and less hazardous to the assailants. In blowing open a gate, or in an escalade, the exposure of a number of troops is indispensable.* In mining, the work is done by two or three, nor are they in much danger, for, a miner working in front of a tower, could not be touched by musketry;† and a small mantlet, placed against it

upon; and the whole of the women and children were sacrificed to these high but mistaken notions of honour. During this tragic scene, the assailants took advantage of the absence of those men who were employed in it, and forced their way into the place, where the Garrison disdaining to accept of quarter, continued their resistance, until every man was put to the sword.

* The best and bravest men in an Army are generally most exposed in this sort of service. The success at the gate of Bangalore, in 1794, one of the most important of the kind ever gained, was dearly purchased by the life of Colonel Moorhouse, who fell on that occasion. At the attack of the gateway of the Pagoda, of Conjeveram, in 1759, to which there were no gates, and which was defended only by a small ravelin, thrown up by the French before it, no less than four Officers were killed and five wounded by one discharge of a gun, after the assailants had carried the ravelin.

† The Author had an opportunity of ascertaining this, at

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at a sufficient angle, would protect him from stones or other missiles from above, till he had lodged himself in the work, where he would be perfectly secure from any annoyance but that of sallies, which, of course, covering parties would be so placed, as to prevent; and, with workmen at all expert in mining, the whole might be effected in one night. The only instance, which I can find of this having been attempted, was in 1752, at the Pagoda of Velore, in the neighbourhood of Trichinopoly, and where it was completely successful. The walls of this Pagoda were of stone, and a large gateway was built up with mud, to prevent it from being blown open. A small party of Europeans, having marched in a dark night, concealed themselves in a neighbouring water course; and one man having advanced, dug under the wicket, which was left in the gate, and having placed a barrel of powder in the chamber he formed there, the explosion brought

the Siege of Malligaum, where he sat with a European, and three or four Pioneers, for half an hour in broad daylight, in front of one of the towers, against which scaling ladders had been reared for the escalade of the outer work, on the Pettah side. The enemy could not see the party to dislodge them with musketry, and the ladders being placed at an angle, and covering them, warded off the stones which were thrown from above. A portable mantlet for the miner on this principle, might be invented for general use.

down the mud work and terrace of the gateway, and formed a practicable entrance.* CHAP. VI. 1819.

I cannot conclude my remarks on the rash assaults, which have been in such general use in India, better than by quoting the opinion advanced on the same subject by Bousmard, a deservedly esteemed writer, on the Attack and Defence of Fortified Places. He observes, that the arguments in favour of such rash attempts, when thoroughly analyzed, do not merit the smallest attention: that if they be discussed by a due consideration of the means necessary for carrying them into effect, and of the difficulties which oppose their success, they usually evaporate, without leaving in the crucible any other deposit, than the *caput mortuum*, of the ignorance and folly of the proposer.†

The Author of the Observations on the Attack of Mud Forts in India, to whose Work I

* Talneir, the attack of which, has led to so much discussion, and where we lost so many Officers, might certainly have been taken by the method I have here suggested. The gateway of this Fort was the strongest part of it, while the ravines running close to the ramparts, would have afforded great additional facilities to the miners, if this method could have been adopted; but, strange as it may appear, there was not a single miner, or a single mining tool in the whole of the First Division.

† See Bousmard's Essai General de Fortification, Liv. vi. Chap. v. "Des attaques irregulieres et brusqueés de Places Fortes, et des moyens de defense à y opposer."

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have before alluded, deserves the praise of having been the first writer, who exposed to public notice, the very imperfect and vicious mode of attack, hitherto generally pursued. He states, that out of seven storms, at which he was present, he has seen no less than five unsuccessful, in which, upwards of 120 British Officers and 3000 men were killed and wounded. This simple fact speaks volumes as to the necessity of some improvement, whatever difference of opinion may exist as to the peculiar plan that ought to be adopted. The same Work contains several useful suggestions, in one of which I entirely agree with him, as to the expediency of introducing the use of hand grenades, which are at present almost unknown in India.*

Having allowed this Author the merit to which he is justly entitled, I must now enter upon the less pleasing task of pointing out his errors. Whilst he laments, as I have done, the disastrous results of many of our sieges, he seems to think that the works of the rude Natives of Hindostan are stronger (not weaker) than those

* The use of hand grenades as a branch of instruction, has recently been restored in England, not only in the Royal Engineer Department, which was the first to adopt it, but also in several Regiments of Infantry, whose Grenadier Companies have been practised in this long forgotten art, from which alone they derived their title.

of the most scientific modern Engineers; and accordingly, under this extraordinary impression, he rejects the sap and the mine, which have triumphed over the strongest Fortresses of Europe, and proposes in lieu of them to substitute a new method of attack of his own, to commence immediately after the establishment of the third parallel. To quote his own words, "the assault (he says) must not be made till "the Rounee wall* be as completely destroyed, "as we have before recommended, that the parapet of the rampart and bastions should be; "so that no cover for musketry may remain "upon it, and this can only be done by a battery on the crown of the glacis, (which is extremely difficult to construct, and liable to "be blown up by the enemy's countermines,) "or by an elevated battery, the guns of which "would bear upon the parapet of the rounee "wall over the glacis, with such a plunge, as "to destroy the whole of its defences. Supposing such a battery to be placed at the distance of eighty yards from the counterscarp; "that the ditch is ten yards wide, that the "glacis is nine feet high, (which is more than

* The rounee wall, so styled in some parts of India, is a low faussebray wall, usually surrounding the rampart of the body of the place of an Indian Fortress, and immediately over the scarp of the main ditch, as at Malligaum. See the description of that Fortress (Page 111).

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" they generally are) and the rounee wall is " two feet higher than the crown of the glacis, " or eleven feet higher than the common level " of the ground, the elevation of the platform " of the battery, so as to enable its guns to " bear upon the rounee wall, three feet below " the crown of the parapet, ought to be about " fourteen feet."

In considering this plan, it may be asked in the first place, whether the destruction of 3 feet, below which the battery he describes cannot bear, would answer the Author's intention. I apprehend not. The parapets of such works are often 7 feet high, from which if 3 feet be taken, 4 feet will remain, a height which affords cover more than sufficient to defeat his object. Now if we suppose that 4 feet of parapet are to be destroyed instead of 3, and with this slight alteration, take every other dimension stated by the Author for correct, his gun platforms will require to be elevated 25 feet above the natural ground; but if it be supposed that 5 feet are to be destroyed, they will require an elevation of no less than 30 feet above that level. Moreover, in all cases, these batteries must be protected by a parapet of at least 7 feet high. Hence by adopting such a system, an Engineer would have to undertake a battery of from 21 to 32 and 37 feet, in total height, in proportion as he might find it neces-

sary to destroy 3, 4, or 5 feet of the Rounee parapet. CHAP. VI. 1819.

Thus the plan of the Author alluded to will not bear being looked into in detail, since it involves works of such enormous magnitude, as may be compared with the great mounds or cavaliers raised by the ancients in their sieges; and the execution of which would waste a quantity of time and labour, that could ill be spared, and might be much better employed, at such an interesting period of the operations.*

After destroying the rounee wall by these immense cavalier batteries, the Author proposes to storm the place by means of flying

* This method of attack has been actually attempted by the Natives of India, particularly at the siege of Tellicherry, in 1782, conducted by one of Hyder's Generals, who after several vain attempts in the usual style of attack, constructed a cavalier battery of the nature alluded to. It was formed with trunks of trees and earth rammed between the intervals, with guns at the top, which were elevated to a sufficient height to overlook the place. The fate of this particular work is not recorded; but as the siege was afterwards raised, and most of the besiegers with their guns, taken in a sally by the Garrison, it is fair to conclude, that it was not found to answer the end proposed.

Another example of this mode of attack occurred about 30 years before, when Clive was besieged in Arcot by Chunda Saib. A house in the Pettah, near the rampart, served as the base of a mound, which was made by the besiegers, sufficiently high to see into every part of the Fort. The Garrison waited, until it was completed, and then a few shot brought down the whole mass.

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ladders, forming a bridge across the ditch. Any person conversant with the practice of mechanics, will undoubtedly pronounce this scheme to be perfectly impracticable, unless the Garrison will consent to remain passive and unconcerned, whilst the besiegers are working at their ropes, to get the various parts of this complex machine, into the proposed positions.

Having thus stated the defective system that has usually been followed by us in the attack of Fortresses in India, and exposed the errors, of the only Writer, who has heretofore considered the subject,* the reader will naturally expect me to substitute something better. Fortunately the task is far from difficult, and involves nothing doubtful, nothing experimental, nothing, that properly speaking, can even be considered new. All that is required resolves itself into two heads.

First, to follow, in our future sieges, those old, established, well known rules, which have prevailed in Europe for more than 120 years; namely, to work up to, and crown the crest of the glacis by sap, to blow in or pierce the coun-

* It is not my intention, absolutely to condemn a *coup de main*, or an irregular siege, under all circumstances. But surely in the attack of Fortresses, garrisoned by men of any resolution and in sufficient numbers to man the works, this mode of proceeding should not be the general rule, as has unfortunately been the case with us in India, but an exception to it, admissible only under peculiar circumstances.

terscarp; and to fill up, if necessary, or otherwise to provide for the effectual passage of the ditches, before the breaches, effected by the battering gun, or by the mine, be assaulted.

'Secondly, to organize the Engineer Department of each Presidency in India, in such a manner, as to enable the Officers to act upon the above system, with a fair and reasonable hope of success, which has not hitherto been the case. This again involves no new or untried idea. It merely requires these Officers to be assisted by a body of Engineer soldiers, trained to the field duties of their Department; and no Army in Europe, excepting perhaps the Turks, is unprovided with a Corps of this kind, which, in most services, is considered the most valuable, and distinguished species of Infantry.

The principles, thus announced, will be further developed in another Chapter, which will conclude the Work.

CHAPTER VII.

THE SAME SUBJECT CONTINUED. MODIFICATIONS IN THE USUAL SYSTEM OF ATTACK, THAT SHOULD BE ADOPTED, IN REFERENCE TO THE PECULIAR CONSTRUCTION OF INDIAN FORTRESSES. THE NECESSITY OF HAVING A CORPS OF ENGINEER SOLDIERS ATTACHED TO EACH OF THE COMPANY'S ARMIES. REMARKS ON THE BEST ORGANIZATION OF SUCH CORPS. CONCLUSION OF THE WORK.

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OF two important improvements suggested in the preceding Chapter, having urged in the first place, the necessity of abandoning those irregular modes of proceeding, which have led to such lamentable failures in our Indian sieges, and having recommended the adoption in future of that approved and scientific system of attack, which has been crowned by unfailing success in Europe; it is not my intention to describe in detail the operations of a regular siege, which as far as such matters can be learned by mere theory, form a part of the course of instruction at all Military Academies, and are explained more or less clearly in a great number of elementary writers. I shall only attempt briefly to point out those modifications of the rules alluded to, which the peculiar construction of the Native Fortresses, may render adviseable.

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Modifications in the usual system of attack, that should be adopted, in reference to the peculiar construction of Indian Fortresses.

In besieging an Indian Fortress, it may appear scarcely necessary to observe, that a salient angle should be chosen as the point of attack; that the Pettah, or any other ground near the place, capable of affording cover, should be occupied, in order to diminish the labour of making parallels and approaches; and that ricochet batteries should be established; and the approaches pushed on towards the exterior line of works by the flying sap, and continued by the regular sap, as soon as that more cautious mode of proceeding is found necessary. These rules, in fact, are precisely the same that would be followed in attacking every Fortress, let its nature be what it may, and therefore I shall not enlarge upon this part of the operations, remarking only in respect to the enfilading fire, that two well appointed ricochet batteries, placed in the prolongation of those two faces of the Fort, which form the angle attacked, will generally suffice.* By these simple operations, which may be completed in

* The foregoing journals have born frequent testimony to the excellence of the Madras Artillery, who are perhaps equal to any in the world. If there be any point of their duty, in which there is room for improvement, the practice of ricochet firing, as a regular branch of instruction, may be suggested. This method, formidable as it is against every species of rampart, would be peculiarly so, if applied to the straight lined ramparts of the Native Forts, which are seldom provided with traverses to counteract its effects.

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a few days, the besiegers will have advanced to within close musket shot of the exterior line of defence, after which, expert Sappers will be required for executing the regular single or double sap, the progress of which is at the rate of about 3 or 4 yards an hour.

At this period of the siege, the peculiar nature of the exterior line of works first begins to influence the operations. Some Indian Fortresses have a glacis in front of the main ditch, as at Nowa, which had also a partial or imperfect covered way. From the statement of the Author on the attack of Mud Forts before quoted, it appears that most of the Native Fortresses of Hindostan, are provided with a glacis, in the manner now under consideration. In the attack of these, the practice of crowning the crest of the glacis by sap, must be followed as in Europe, and batteries may be constructed there for the purpose of breaching the low faussebray or rounee wall, which almost invariably surrounds the principal rampart of the body of the place. It is possible, however, that batteries, so placed on the crest of the glacis, and firing across a very deep and narrow ditch, may not be able to bear sufficiently low, to effect a practicable breach in the scarp revetment of the faussebray. In this case, therefore, it may sometimes be proper to blow in the counterscarp and part of the

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glacis by mining, in order to lay open the faussebray to the fire of batteries, placed in a more retired situation on the glacis.

If on the contrary, the Fortress besieged should have no glacis, but an exterior inclosure, consisting of a simple rampart, beyond the faussebray and the main ditch, as at Malligaum, the mode of proceeding must be somewhat different. Whilst the sap is advancing towards this rampart, which is usually of moderate height, and constructed of mud, Miners must be sent forward, to lodge themselves in the lower or solid part of three or four of the principal towers, in which they will prepare chambers for blowing them up. But if this rampart should be built with solid masonry, then instead of attaching the miners to the wall at once, it may be necessary to commence the mines requisite for the demolition of the towers, by means of galleries carried under the level of the foundation. On the explosion of the mines thus prepared, troops must be in readiness to move forward immediately, and occupy the exterior line of works of the Fortress, which will then be laid completely open to assault, and from which, in all probability, the enemy will retire, without waiting the issue of a personal conflict. This will form an excellent parallel for the ulterior operations, provided that in certain parts of it a parapet

CHAP. VII. be formed on the reverse of the terreplein towards the enemy, either by taking down the original parapet, and turning it, as it were, inside out, or otherwise.

The next consideration is the passage of the ditch, and the formation of a practicable breach in the rounee wall, for which purpose, if the exterior rampart, now supposed to be in the possession of the assailants, should be too near to the counterscarp, to admit of a breaching battery being placed in the interval, it must be cleared away by mines, fired for this express purpose. If on the contrary there should be a considerable space of ground intervening, this space must be occupied, and the sap extended to the brink of the ditch, and a proper breaching battery established, in the same manner, as was before described, in treating of the attack of the simple glacis, or counterscarp.

It is possible, however, that under peculiar circumstances, it may not appear advisable to attempt to breach the faussebray by battering guns. In this case, galleries for the descent of the ditch must be excavated, and the counterscarp revetment pierced, after which the passage of the ditch must be executed by sap, and the rounee wall or scarp-revetment of the faussebray must be breached by parties of Miners, pushed forward for that purpose. At the same time, a battery must be constructed

to breach also the high interior line of defence or principal rampart of the body of the place, immediately above the breaches in the fausse-bray; and mines must be prepared to blow in the counterscarp opposite to these breaches.* The explosions should be so timed, as to take place, as soon as the breaches in the body of the place are practicable, but not before; and the storming party must be in readiness to push forward across the ruins, the very moment that these are fired, as was done at Nowa, where the explosion of the mines was the signal of assault. These operations, perilous and difficult to men ignorant of such duties, are easy of execution to properly trained Sappers and Miners, as has been proved by the numerous sieges of Europe, where the deep and broad ditches of well flanked Fortresses have

* The quantity of powder to be used in these mines will depend upon the nature of the counterscarp, and also upon whether it is reveted. The ditches of Native Fortresses are frequently without revetments; for the earth in some parts of India is of great tenacity, and notwithstanding the heavy periodical rains, it will stand at a much less slope, than in Europe. The Author remembers the ditches of Berwanee, a Fortress on the South bank of the Nerbudda, which had been formed several years, and to which, from the inquiries he made, he found that no great attention was paid, and yet they were standing in very tolerable order, at a slope of about one fourth. He could not discover, whether the earth had been prepared in the first instance, to enable it to resist the effects of the weather, and to preserve its slope.

CHAP. VII. been passed, and their scarp revetments breached by mining, in spite of all the efforts of defenders, much excelling the Natives of India in discipline and military skill, and certainly not inferior to them in personal courage.

To pretend, like the Author of the Book on Mud Forts, before quoted, that the same process could not be applied, with at least equal success, to the passage of the imperfectly flanked ditches of the rude fortifications of the Natives of India, is, I conceive, a most glaring and pernicious error, that could only have arisen from the limited experience of the irregular sieges, and vicious system of attack, of which that Author was a witness.

Having thus briefly described a mode of attack, which by taking advantage of the defects of the Indian system of fortifying, and by bringing into play the science and experience attained by Europeans in the art of sieges, would place the reduction of the strongest Native Fortresses beyond the power of chance, and would render unavailing the most desperate valour and the greatest exertions of their Garrisons; before I proceed to another branch of my subject, it may be proper to notice some points already treated of, a little more in detail.

First, in regard to the proper distance for breaching batteries, it may be remarked, that even

when they are not from circumstances obliged to be advanced to the crest of the glacis, or to the counterscarp, I should not recommend them to be established at more than 150 yards from the wall, that is to be battered. At the siege of Chingleput, in 1752, four twenty-four-pounders at 500 yards distance, were found to have no effect. At 200 yards, a practicable breach was afterwards made with the same guns, both in the outer and inner walls, in the space of four days, and had the distance been still further diminished to about 100 yards, the breach would in all probability have been effected in half that time. If the ramparts of an Indian Fortress are of stone, the curtain should generally be battered in preference to the towers, as the shot are apt to be reflected from the latter, owing to their circular form, and the hardness of the material of which they are built. The propriety of this rule was exemplified in a remarkable way at the siege of Palghaut, in 1781, where the besiegers in vain attempted to breach one of the round towers of the Fort, which was composed of very large blocks of granite, laid in the manner technically called "headers," in architecture, so as to present their ends, not their sides, to the shot. In 1790, when the Fort was again attacked, one of the curtains was breached in a few hours.

If all the works of a Fort be constructed of

CHAP. VII. mud, the breaches in each inclosure or line of defence will be better and more quickly effected by mining, than by battering guns, for such is the nature of these earthen revetments, that the shot bury and lodge themselves in the mud, without bringing it down. Live shells, the effect of which against earthen works, has been proved in Europe to be much greater than that of shot, may also be used to advantage; but it may justly be asserted, that there is no country in the world, in which mining may be used for the purposes of attack, to so much advantage as in India, where the ill flanked outline enables the Miner to lodge himself at once, in the face of the rampart, without the necessity of approaching it by subterraneous galleries, and where the mud, of which the works are composed, is soft enough to be penetrated with ease, and yet of sufficient tenacity to stand without woodwork of any description.*

Captain Coventry, of the Madras Engineers, tried an interesting experiment, connected with this subject, in the year 1818, at Amulneir. It was his intention, in the attack of that Fort, to have breached the rampart by mining; but as the place surrendered without resistance,

* This would of course render the progress of the Miner more expeditious, than in soil, where regular mine frames and sheeting are necessary, in which the work proceeds seldom faster than at the average rate of one foot per hour.

he resolved, on receiving an order to destroy the works, to put to the test, the plan of operation, that he had previously determined to pursue, if the place had stood a siege. Accordingly he ran a gallery under one of the circular towers, and placed 1100 lbs. of powder in the chamber, the line of least resistance being 22 feet: and although the powder was of inferior quality, being made by the Natives, the effect of the explosion was very considerable, throwing down the whole of the tower, and a part of the adjacent curtain.*

It may further be remarked, that it is better to effect a breach by mining, than by battering guns, so far as regards the expenditure of shot, not so much, however, on account of the ex-

* The Author of the Book on Mud Forts thinks Mining useless as an agent of attack, because when it has been attempted he has seen it fail, the besiegers being twice effectually countermined. Instead of this circumstance operating as a discouragement, it ought to be an incentive to us, not to allow any of the Natives of India to excel us in so important a branch of the art of War. However expert the Natives of Hindostan, where that Author served, may have been in the practice of Mining, it is absolutely impossible, that their Chiefs could have directed them with the same science as the Company's Engineers, to whom they were opposed. If the latter had been at the head of a body of well trained Miners, the result of their labours must therefore have undoubtedly been success, instead of failure. In those parts of India, where I have served, the Natives have little or no knowledge of Mining.

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pense,* as the difficulty of conveying a sufficient quantity of this most essential article of store.

In regard to the best hour of storming a Fortress, after practicable breaches are effected by the battering gun, or by the mine, opinions are divided. The morning, noon,† and night,‡

* Even this is a matter of some consequence, if it be considered, that it may require three months to convey the shot to the advanced Divisions, and that it may be a year more before they are used: that in the Madras service they are always transported on bullocks, each of which carries only 4 eighteen-pound shot, and involves an expense of nearly five rupees a month, over and above the prime cost of the animal. Thus if the value of the shot, and of Sea carriage to India, be also taken into consideration, some idea may be formed of the sum, which every cannon ball costs the State before it is fired. There has generally been a deficiency of shot, especially towards the close of our sieges, when rewards, of from one quarter of a rupee to two rupees a piece, have been offered for the shot brought in, according to the exigencies of the service, and the number of camp followers, who may have been disposed to hazard their lives in this pursuit. It is remarkable, that at the siege of Asseerghur, Sir John Malcolm's Division carried away more shot than they brought with them, owing to the reward offered being a trifle higher, than in the other Divisions.

† The storming of Seringapatam took place in the middle of the day; but it appears that the unusual bustle of the preparations in the trenches, attracted the notice of several of Tippoo's principal Officers, who were fully aware of the intended assault, and requested him to prepare for it, but in vain; as a blind fatality seems to have characterized all his actions, towards the close of his life and reign.

‡ Orme gives a strong opinion in favour of night attacks.

have each their advocates. For my part, I should be inclined to recommend as a general principle, subject however to such variations as local circumstances may require, to commence the assault in the very early part of the morning, before there is sufficient light for the enemy, to distinguish objects correctly. At this time, they will also have had the fatigue of watching all night, and to exhaust the Garrison the more, a false alarm in the course of the night may previously be resorted to. Had the advance to the storm at Malligaum taken place half an hour earlier, as was originally intended, there is reason to believe that many valuable lives might have been saved, and that the result might have been very different.

I have thus attempted to describe a line of operations, which would place the reduction of the strongest Native Fortresses beyond the power of chance, and which by being grounded on the principle of taking advantage of the faults and inferiority of construction, observable

After relating the extraordinary success of the French under Monsieur Bussy, in 1750, in the assault of Gingee, which was considered the strongest Hill Fort in the Carnatic, he observes, that " had the attack been made in daylight, it " could not have succeeded, for the Moors, as well as In- " dians, often defend themselves very obstinately behind " strong walls, but it should seem that no advantage either of " numbers or situation, can countervail the terror with which " they are struck, when attacked at night.

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in the Oriental system of Fortification, and of bringing into play the science and experience attained by Europeans in the art of attack, would render unavailing and nugatory the most desperate valour, and the greatest exertions of their Garrisons. But with all the advantages, that this improved system of attack will undoubtedly offer, it can never be expected, that it shall generally be acted upon in India, until the Army of each Presidency shall be provided with the proper means for carrying it into effect, with a fair prospect of success, which has never yet been the case. This leads me to the consideration of the second improvement, before-mentioned, namely, the necessity of having a well trained Corps of Engineer Soldiers, or of men properly instructed and exercised beforehand, in all the operations of a siege, to assist the Engineer Officers in their arduous duties in the field. Of all the defects, that have hitherto led to those lamentable disasters, with which many of our Indian sieges have been attended, the want of such a Corps has been the most glaring and pernicious; and if that defect be remedied, all the minor arrangements and improvements necessary will follow, as a matter of course.

The necessity of having a Corps of Engineer Soldiers, attached to each of the Company's Armies.

During the whole of the wars, that have hitherto been carried on in India, the Company's Engineer Officers have never had a man em-

ployed under them, who understood beforehand any one of the duties, which he was required to execute. CHAP. VII.

Now, if we were told, that the Artillery of any Power consisted of a body of Officers, with an establishment of guns and stores, and sufficiently instructed in the theory of their duties, but who, instead of having a permanent Corps of skilful Gunners under their orders, were only supplied with men to fight their guns on the day of battle; and that they were under the necessity of teaching these men how to load, and fire, and to perform all the other necessary manœuvres of Artillery, in the presence of the enemy; every military man would naturally laugh at such an arrangement as the height of absurdity, and one that must lead to the certain loss of every action, in which the fire of Artillery was of the smallest importance. Yet, absurd as it may appear, such is a correct picture of what has hitherto been the actual state of the Engineer Department of the Company's Armies. The only men generally available for the duties of that Department have been the Pioneers, and as these men have never been employed in military works of this description, excepting upon actual service, it has been the hard fate of the Engineer Officers, to be obliged to teach them every thing that was to be done, either when exposed to fire, or at

CHAP. VII. least when in the presence of the enemy, and thus to waste those precious moments when skill, energy, and activity, were most wanted, in the irksome and laborious drudgery of superintending a multitude of little details, which in other services would be the duty of a Private, or, at the utmost, of a Corporal of Sappers. It is a fact, that in our sieges, the Officer of Engineers in person, has often had to teach a Pioneer how to make a gabion or a fascine, and to stand over him in the execution of the work.*

* It may be said, that the Pioneers, after having been employed in several successive sieges, must necessarily have acquired some portion of that skill, in which they were at first deficient, and on this plea it may be urged, that the character I have given of their inefficiency is too strong. In reply, I need scarcely suggest to the reflecting reader, that the knowledge thus acquired by some individuals out of a large body, without any systematic instruction beforehand, must necessarily be of a most imperfect nature, and if there be no regular practice afterwards to perpetuate it, it must of course evaporate almost instantaneously, and become lost to the service for ever. And, after all let us ask, what did the Pioneers actually do, or what did they learn in those sieges. Were they in the habit of crowning the counterscarp by sap? No! Did they ever work across a dry ditch, or fill up a wet one under fire? Never! Did they ever breach an enemy's scarp revetments by mining? Never! And yet these are the duties of Engineer Soldiers. Poor, indeed, would the Sapper and Miner be considered in Europe, whose skill like that of our most experienced Native Pioneers, extended no further than the making of a fascine and a gabion, and having some notion of the nature of a battery. By these observa-

The confusion, the difficulties, the loss of time, and the consequent loss of lives, which have attended, and which necessarily must attend, such an imperfect mode of proceeding, may easily be conceived. Even in the first and simplest operations of an irregular siege, such as the construction of a portion of a parallel, with a common battery or two, these difficulties have always been sufficient to exhaust the bodies, if they could not subdue the spirit of the Engineer Officers. What prospect of success, therefore, could an Engineer have had in contemplating the long protracted labours, attending the ulterior operations of a regular siege, such as the execution of the sap under close musketry fire, without Sappers, and the execution of mines, without Miners? The prospect was certainly appaling, and unless the evils of which I now complain be remedied, CHAP. VII.

tions, I am far from wishing to depreciate that respectable body of men. It has been their misfortune, not their fault, that they have been constantly called upon to perform duties in the field of a most difficult nature, for which they were not qualified, like other soldiers, by previous exercise and instruction. So far from blaming them, every Engineer who has witnessed their exertions, must admit that they deserve great credit for having shown so much zeal, under such very discouraging circumstances. But the opinions of those Officers of the Army, for some there are, who maintain, that the present Pioneers have always been a perfect model of a Military Working Corps, and equal to all the wants of the Service, cannot be too highly reprobated.

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in the event of new wars, very few Engineers indeed, however scientific or enlightened they may be, will venture to attempt much more than a small portion of a parallel, and a common breaching battery. For the bravest and most zealous men, will scarcely dare to incur the responsibility of recommending a regular siege, when they know that the Army has not the means of executing it with proper vigour, or even with a reasonable hope of success; and that from the general ignorance of such subjects, which unfortunately prevails amongst the Officers of the British Army, any failure that might happen afterwards would be ascribed, not to the want of means, which caused it, but, to the obstinacy of the Engineer, in proposing an impracticable mode of attack. It is true, that from time to time, some very strong-minded man may follow the just rules of the Art, and do his best, without adequate means, in spite of every difficulty, and regardless of the consequences to his own reputation; and it is not impossible, that an Engineer, acting upon such high-toned principles, may succeed: but instances of this kind are very rare indeed in the history of our Indian Campaigns. In the late war, the Siege of Nowa, conducted by Ensign Oliphant, is the only example of this nature; upon which it may be remarked, that if that enterprising and skilful Officer had been

provided with a body of properly trained Sappers and Miners, the place might undoubtedly have been taken in half the time.* CHAP. VII.

Another cause in some degree contributes to the inefficiency of the Engineer Department of the Company's Armies on actual service: that is the inadequacy of the Officers in point of numbers, arising from the various duties of a more civil nature, intrusted to their charge, and which leave but a very small proportion disposable for the field. In the British Service, in

* The siege of Tanjore, in 1773, was mentioned in a former note. That of Caroor, in 1760, in which the operations were conducted by Captain Richard Smith, is another instance of an attack upon a similar principle, which also proved successful. The Fort was square, with a bastion at each angle, and square towers in the curtains, and had stone revetments, with a dry ditch, but no faussebray. In every bastion there was a cavalier, consisting of a round tower. Captain Smith commenced his attack by occupying the Pettah, which he connected by trenches with some mud buildings in front of it, which offered advantageous cover to the assailants on one side. From thence he pushed his approaches in the direction of one of the salient angles of the Fort, to within 40 yards of the ditch, when the enemy's musketry forced him to have recourse to the double sap, by means of which he reached, and crowned, the counterscarp, and sprung a mine, which blew the revetment into the ditch, after which the Garrison capitulated. The highest praise is due to the method, and perseverance, with which he brought this siege to a close, with men so very ignorant and inexperienced in such operations, that they were seven days and nights in completing about 200 yards of sap.

CHAP. VII. other parts of the world, where the Corps of Royal Engineers is employed, ten or eleven officers are considered indispensable for a siege of the smallest magnitude, in order to furnish the necessary reliefs, and to provide for the numerous casualties incident to this branch of service. But the number I have mentioned is equal to one-third of the whole Corps of Madras Engineers; and although the climate of India renders impossible such continued personal exertions, as may be made in Europe, and therefore would seem to require rather a greater number of Engineer Officers than otherwise, for a service of a similar nature; this circumstance has been so little attended to, that there have seldom been present at a siege in India, sufficient Engineers to furnish a proper relief.*

* This remark is equally applicable to the Artillery Officers, of whom there never were sufficient employed in the same siege to furnish a relief: and at the Siege of Asseerghur in particular, the Officers of the Madras Artillery actually lived in the batteries, to which they were respectively attached. A large augmentation, however, which this Corps has received since that period, will, in all probability, prevent the recurrence of this inconvenience; and indeed, the Engineers form the only branch of the Madras Army, which was not increased at the close of the Campaign, but was allowed to remain of the same strength as before our late accession of territory. A brief recapitulation of the effects of these operations, on the Officers employed, will place the utter inadequacy of the Corps to meet the exigencies of the Service, in a more strik-

At the Sieges of Belgaum and other places in the Southern Mahratta Country, there were no professional Engineers present; nor were there collected together at any time during the late campaigns, more than five; and at one period, four out of these five were disabled. But besides the usual duties of Engineer Officers during a siege, which ought to be those of general superintendence only, the labour of instructing the working parties, which is peculiar to the Indian service, and which as I before remarked, ought to be the office of a Corporal or Private of Sappers, has also been thrown upon the Engineer Officers, so that they have actually been obliged to live entirely in the trenches, and to take food and sleep there, at such moments as they could snatch. These are not represented as hardships. It is not too much to say, that they have always been cheerfully born; nor would such temporary inconveniencies be thought of, if the Engineer Officers

ing point of view. Out of eleven Engineer Officers serving in the field with different Divisions, and at different times, during the war, two were killed, after having been both wounded on former occasions; two died of fevers; three were wounded; two were obliged to quit the field from illness, and have since been sent to sea for the recovery of their health; and more recently Captain Coventry, who conducted the Siege of Asseerghur, has fallen a sacrifice to the repeated attacks of a fever, to which he became subject in consequence of that severe service.

CHAP. VII. who experience them, could look forward with any certainty to the prospect of their labours being crowned with success. But this has never been the case. Whilst their bodies have been harassed by unnecessary fatigues, their minds have been tormented by the anticipations of the failure of every operation of difficulty and importance, in which they have been engaged, owing to the want of properly instructed Engineer Soldiers, to assist them in their duties.

I have, perhaps, said enough to convince every impartial and reflecting person of the necessity of this important improvement, being immediately adopted in our Indian Army. In one Presidency only (the Bengal Government), steps have actually been taken, for carrying this measure into effect, as was before remarked in the Introductory Chapter,* and it is to be hoped, that ere long this salutary example will be followed at the other Presidencies. If, however, any other grounds than its own merits were required to prove the advantage that would accrue to the State, from a better organization of the Engineer Department of our Indian Armies, recourse might be had to other examples for authority; and the course pursued by all the powers of Europe, with regard to this branch of their war equipments, might be cited as a proof of the high importance that

* See Page 18.

is attached to it. But without entering into a detail of the Establishment adopted by any other nation, I shall only remark, that towards the close of the Peninsular War, the Corps of Royal Sappers and Miners in our own Service, consisted of no less than four Battalions of eight Companies each.* CHAP. VII.

Let us now consider the objections, that are likely to be urged against this important improvement. To those, who assert, that as we have done without Engineer Soldiers hitherto, we may do without them still; and who object to every change, however beneficial, merely because it is a change; no answer is necessary: for it is vain to oppose by argument, those opinions which have no pretension to be founded upon reason, and which can only be resolved into a blind confidence of the continuance of that good fortune, which has so often befriended us in our Indian Sieges. If it be said, that although a Corps of this description may be occasionally useful; yet that a siege occurs so seldom in this country, that their ser-

* This Corps has subsequently had its share in the general reductions, which have affected the whole of the British Army, since the Peace. The formation into Battalions has been set aside altogether, and the present system is to number the Companies, which will probably be adhered to, even in the event of great augmentations taking place hereafter. Every Company is commanded by a Second Captain, and two Subalterns, of the Royal Engineers.

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vices may, as heretofore, be dispensed with: to this I shall briefly reply, that the same reasoning, if valid, would do away the Artillery, and indeed the whole of the Army, in time of Peace; for a battle happens as seldom as a siege, and we ought to be as well prepared to meet the one as the other. Besides, let it be remembered, that it is not merely during a siege, that a Corps of this kind would be useful. They would also afford means for the military passage of rivers, the want of which is so much felt by every army, that attempts to move in India during the Monsoons, and although the particular organization and equipments most proper for this peculiar branch of the Engineer Department, in reference to the nature of the Rivers in India, is too extensive a subject for me to enlarge upon in this Work,* yet I may

* Every one who has marched with Horse Artillery guns in India during a Monsoon, must be struck with the difficulty, if not the impossibility, which would attend the transport of a Pontoon train on the European principle, sufficient for crossing the largest Rivers of India, during the season, when it would be most required. In the British Service, judging by the experience of the Peninsular war, no less than 430 horses would be considered necessary for transporting a train of 36 large tin Pontoons, of the old English pattern, together with the complement of store waggons, forge carts, &c. attached to them. A similar equipment in India would require 600 of the country horses to transport it.

Without attempting, therefore, to organize a Pontoon Train of such immense magnitude, it has occurred to me, that

be permitted to advert to the perfection attained in this particular branch in the King's service, and to express my hope, that the day may soon CHAP. VII.

the following system might be substituted in lieu of it, which resolves itself into two distinct measures.

First, In order to provide for the passage of Rivers of the first magnitude (of which there are not many), let a small fortified post be established as high up the River as possible, to serve as a depôt for boats, wicker pontoons, casks, or other floating bodies fit for the purpose of military bridges, together with a sufficient proportion of all the other stores necessary for securing and forming the superstructure of the bridge. This arrangement being previously made, it will be obvious, that by moving the necessary stores down the stream, an efficient bridge may be established on any part of the River below the depôt. The same course might, perhaps, be adopted in regard to Rivers of the second magnitude, such as the Taptee, Mangerah, &c.

Secondly, The passage of all Rivers of any importance, being thus provided for, a small military bridge equipage might be carried with the army in the field, for the passage of the minor Rivers, and of Nullahs, which might also occasionally be used, in aid of the materials from one of the depôts, for the passage of the larger Rivers, if required. A travelling equipment of this nature might, perhaps, consist of seven or eight pontoons, of the most approved pattern, with the remainder of casks to be carried on camels. Eight of these useful animals might carry with ease, the casks, slings, braces, &c. for forming two complete piers, which are equivalent to an equal number of the old English tin pontoons, exclusive of the superstructure, which might be carried on store carts, to be drawn by bullocks, or horses, as may be found most expedient.

The above suggestions are, of course, only the rough and

CHAP. VII. arrive, when the remark of the Principal Author of this improvement at home, namely, "that the Officers and Men of the Royal Engineer Department, may enter into competition with the most expert Pontooners of any of the Continental nations,"* will be equally applicable to the Engineer Departments of the Indian service.

The principal objection, which in all probability will be urged against the proposed improvement, is the additional expense; but when the utility, or rather the indispensable necessity, of any measure is established, the expense becomes a secondary consideration. There are, however, many advantages to counterbalance it. The better founded prospect of success, the great saving of time and of lives, in every siege, and the consequent power of employing greater means against the enemy, in all other operation, in the course of each campaign. Take these circumstances into consideration. Estimate the value of the lives of the European Troops, so lavishly exposed under the present system; together with the increased expen-

crude outlines of a system, which practice and experience alone could bring to perfection. One preliminary, however, is indispensable for this, and for every other improvement in Engineering—a Corps of Soldiers to work with.

* See the Preface to Lieut.-Colonel Pasley's Elementary Fortification, Note C.

diture occasioned by those failures, which must necessarily arise from the want of Engineer Soldiers: and the policy of having such a Corps will be admitted, even in an economical point of view. In Peace they may be employed to no less advantage, by following the example of the Royal Engineer Department, in which, so far as it can be done without injury to their efficiency, discipline, and instruction as Soldiers, they are made to assist in the execution of those public works and repairs, which are always going on under the direction of the Engineers, and which otherwise would be entirely performed by hired Artificers and Labourers, a set of men not much less expensive than a Military Corps in Peace, and not available for the public Service, in time of War. CHAP. VII.

Admitting the necessity of Engineer Soldiers, on the grounds that have been stated, it will belong to abler judges to point out, and to higher authorities to determine upon the extent, to which such an Establishment should be carried in India, and on the materials, of which it should be composed: but in abstaining from a full discussion of this part of the subject, I may not be thought to pass the bounds, which I have prescribed to myself, in remarking, that a Corps of Engineer Soldiers would open a field for the employment of Half Casts, in which they might be brought forward to advantage, as their pecu- Remarks on the best organization of a Corps of Engineer Soldiers.

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liar qualifications, if properly directed, appear to render them particularly fit for this branch of service: and thus a race of men, who are daily increasing in numbers, and consequence, instead of being a burthen to the community, as too many of them now are, might be made useful and respectable; and would, by being thus brought into its service, be furnished with a powerful motive of attachment to the State; at the same time, that they would contribute to its defence.* But whatever class or classes of men may be selected for this duty in India, I cannot help expressing my hope, that they may be organized on the model of the British, not of the French Service. In France, Sapping, Mining, and Pontooning, are all distinct duties; and there are Battalions of Sappers, Companies of Miners, and Companies of Pontooners, each having their respective Officers, and limited to their own peculiar employments. On the great scale of Continental warfare, carried on by the vast Armies, that followed the banners of Napoleon, it is possible that no inconvenience

* The idea of employing Half Casts (or the descendants of Europeans by Native mothers) is not original, having been suggested by Sir John Malcolm, in a letter addressed by him, in 1817, to Colonel Young, then Military Secretary to Lord Hastings; and it has since been brought before the Madras Government in an official shape, by Major de Haviland, in a report made by him, as acting Chief Engineer, on the state of the Engineer Department of that Presidency.

may have resulted from that subdivision of labour; but it was justly considered, that in the British service, it would be preferable to have all the Soldiers of the Engineer Department disposable for the general duties of the Corps, without distinction: and, therefore, every man is equally instructed and exercised in Sapping, Mining, and Pontooning; so that in every part of the world, the exertions of every Company of the Corps may be commanded, in the manner most useful to the State, according to the nature of the Service going on. A system, also, has been adopted in the Royal Sappers and Miners, of granting extra pay, called working pay, to the men, only on those days when they are employed in actual labour for the public Service, and in three several rates, in which they are classed according to their merit, which is estimated partly by their skill and exertions as workmen, and partly by their regularity and good conduct as Soldiers. This system seems no less worthy of imitation, for by duly proportioning the mean rate of extra pay to the service performed, it involves no additional expense, but is of the highest utility by promoting emulation, and affording encouragement to deserving men, at the same time that it supersedes, in a great measure, the necessity of personal punishment, by acting as a powerful check to idleness and misconduct.

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In urging the necessity of such an Establishment, I have rested solely on the inconveniencies, we have experienced in being without it, in our recent Wars, in which we have always been the attacking power; but the time may come, and the occurrences now taking place in Europe bring the question at least within the bounds of possibility, when we may be brought into collision with European Powers, and be obliged to fight, not for aggrandizement, but for preservation. It is not intended to argue this question, nor indeed is it introduced for any purpose, but to show, that if ever the day should arrive, when we find ourselves opposed to European science, the necessity of an efficient Engineer Department, whether for the defence of our maritime and other frontiers, or for attack, or for the passage of rivers, will become still more imperative. This idea may be thought visionary, and they who are unable to see, amid the calm which surrounds them, the presages of a storm, or the element of future convulsions, may think it ridiculous, now that Peace reigns throughout India, to prepare for wars, which may never happen, or which at all events they trust may be far distant; but let such short-sighted persons at least remember, that Peace is the season for organizing an Army, and preparing it for the hour of emergency. Let them also remember, that it is uncertain when that

hour may arrive, or with what Power we may next have to contend; and when it does arrive, if we are still unprovided with an efficient Engineer Department, greater losses, and more numerous reverses, will be experienced than heretofore; for we must not always expect to be opposed to Powers as irresolute and ignorant of their own strength, as our enemies have proved themselves to be, in the last War. The experience of all ages should convince us of the contrary. Carthage was overcome on her own element, by an enemy, whom she at first despised. In more modern times, Charles XII. with the finest and best disciplined army in the world, was overthrown at Pultowa, by men, who, but a few years before, had been a horde of barbarians, inferior to the Mahrattas of the present day, in military skill: and in some of the actions, that took place in our late Naval War with America, we have seen convincing examples of the fatal effects that may result, from holding an enemy too cheap.

In reference to a former part of this Chapter, in treating of the operations of a siege, I purposely avoided entering into any discussion of the duties of the Troops of the Line, in order to confine the undivided attention of the reader to other points, of more urgent importance. In fact, if the defects of the Engineer Department of our Indian Armies be removed, no difficulty

CHAP. VII. will be found in employing the other troops, co-operating with them in a siege, to the utmost advantage.* The British Soldier is sure to support his character, and to preserve his superiority in every part of the globe; and as far as my experience goes, I am very far from joining in the desponding opinion of those, who anticipate our defeat, as soon as our Sepoys shall come in contact with European enemies.† On the contrary, I look forward with confidence to the result, if the day should ever arrive, when they shall be drawn up to meet the hardy myriads of the North. I am convinced that it only requires Officers at their head, whom they love and

* I cannot, however, forbear remarking the great advantage that might be derived in a siege from a small proportion of Riflemen; but as the Rifle Corps is not sufficiently large, and as it might not accord with its discipline to detach parties from it, to every place, where this kind of service is going on, perhaps a few select men in each Corps might be armed and practised with the rifle, which would ensure a certain number of Soldiers of this description, whenever they might be required.

† Although the numerous instances on record of the high discipline, valour, and attachment to their Officers, evinced by our Sepoys, are sufficient to establish their military character, the hard-earned fame of our Native Army, has not been allowed to go undisputed; and one writer, in particular, goes so far as to urge the monstrous proposition, that those brave high-minded men, the Natives of our Provinces, who live under the protection of our laws, and who in fighting for us, fight also for their own families and dearest interests, shall be exchanged for mercenary Arabs, and Malays.

esteem, for the Madras Native troops to follow to the most daring, or even desperate enterprises. In regard to their employment at sieges, I shall only observe, that notwithstanding the very high opinion I entertain of them, they appear to me, when acting singly, to be wanting in that confidence, and presence of mind, which is the characteristic of the British Soldier; and therefore the advanced sentries thrown out from the covering parties at a siege, should be select Europeans, in preference to Sepoys.

THE END.

Printed by Townson and Burrill, Chatham.